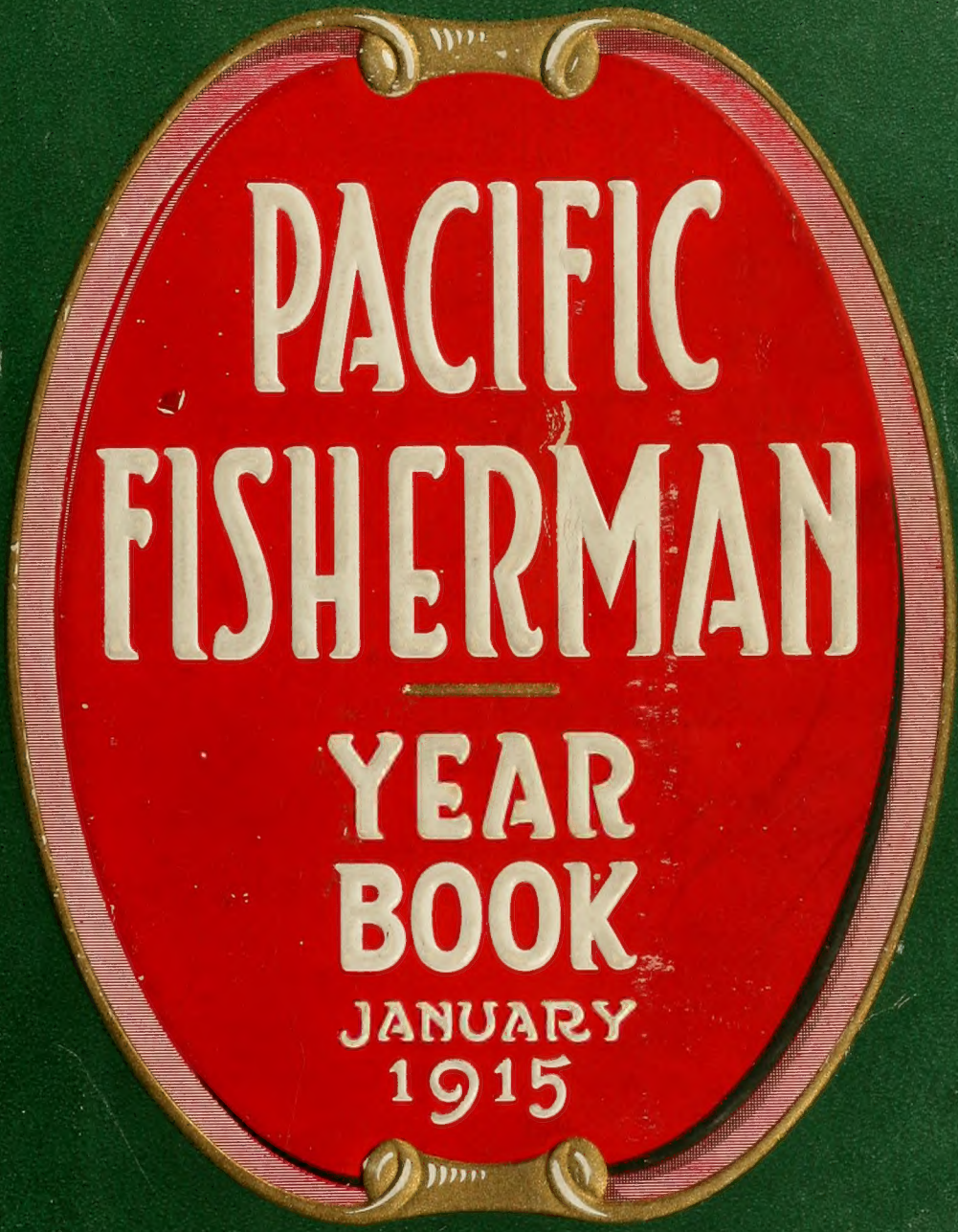


5335-5335

95H
P335
FISH



**PACIFIC
FISHERMAN**

**YEAR
BOOK**

**JANUARY
1915**



PACIFIC

FISHERMAN

YEAR
BOOK

JANUARY
1915

ALASKA RED SALMON

DOES YOUR BRAND BEAR THIS SEAL?

THE SALMON



OF QUALITY

PACKED BY

ALASKA PACKERS ASSOCIATION

THE J.K.ARMSTRONG COMPANY

SAN FRANCISCO

NEW YORK

BOSTON

CHICAGO

United States Distributors

1915—PACIFIC FISHERMAN YEAR BOOK—1915

Single Copies, \$1.00. Free with subscription to Pacific Fisherman—\$2.00.

Published by—

PACIFIC FISHERMAN

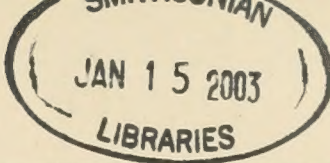
1321 Smith Building

SEATTLE, U. S. A.

Note: Pacific Fisherman Year Book is issued annually, the Pacific Fisherman magazine monthly. For advertising rates or other information concerning either, address as above.

INDEX

	Page		Page		Page
A		G		Alaska pack by districts, from inception of industry	45
Alaska—Black Cod, fresh, shipped from, on regular steamers	101	Gorman & Co. Canned Salmon pack	39	Alaska pack by species, from 1898 to 1914	41
Black Cod salted in 1914	104	Salmon Market Review	58	Alaska Packers Association Pack	39
Canned Salmon pack, by districts, from inception of industry	45	Griffith-Durney Co., Salmon Market Review	55-57-58	Alaska Pack, Recapitulation of	39
Canned Salmon pack by Species, 1898 to 1914	41	H		Alaska, Southeast, Pack	38
Canned Salmon pack, 1914, recapitulation of	39	Halibut—Arrivals at British Columbia Ports, in 1914	101	Alaska, Western, or Bristol Bay, pack	38
Canned Salmon pack of Central	28	Frozen, prepared in 1914	82	British Columbia pack	40
Canned Salmon pack of Southeast, 1914	38	List of Haysport, B. C., Vessels	101	British Columbia pack in previous years	40
Canned Salmon pack of Western, 1914	38	List of Prince Rupert Vessels	101	California pack	36
Distances to the various fishing centers of	61	List of Puget Sound Vessels	100	Columbia River pack	37
Fish By-Products	107	List of Steveston, B. C., Vessels	101	Columbia River pack, from inception of industry	44
Frozen Food Fish Prepared	82	List of Vancouver Vessels	101	Exports, 1905-1914	50
Herring Salted in, 1914	104	Pacific Catch, 1914	99	Exports, 1910-1914	48
Locating Cannery and Trap Sites in Alaska	70	Puget Sound Fleet Catch, 1913-1914	99	Exports from certain ports, 1914	50
Mild cured pack in 1914	80	Review	99-101	Food qualities of	34
Miscellaneous fresh fishes shipped from	101	Hawaii, Canned Salmon shipped to	46	Gorman & Company pack	39
Miscellaneous Salt Fish shipped from in 1914	101	Haysport, B. C.—List of, Halibut Vessels	101	North Alaska Salmon Company	39
Pack of Salted Salmon in, 1868 to 1914	103	Halibut arrivals at, in 1914	101	Northwestern Fisheries Co. pack	39
Pickled food herring from, 1914	101	Herring—Alaska pickled food, 1914	101	Opening Prices and pack, 1903-1914	55
Salt Salmon pack, 1914	103	Frozen for bait, 1914	79	Opening prices since 1897	57
Whaling Products, Shore, 1914	108	Salted, in Alaska, 1914	104	Oregon Coast pack	36
Alaska Packers Ass'n Canned Salmon pack, 1914	39	Hüet, C. B., Salmon Market Review	58	Outside Rivers, Recapitulation	37
Anderson & Coltman, Ltd., Salmon Market Review	59-61	K		Pacific Coast pack	36
B		Kelley-Clarke Co., Salmon Market Review	55	Pack by grades	35
Black Cod—Frozen, prepared in 1914	82	M		Comparative Review of pack	35-45
Salted, in Alaska, 1914	104	Measures, Weights and, used in South America	46	Pack by Waters, 1864-1914	41
Shipped fresh from Alaska	101	Mild-Cured—Pack in 1914	80	Puget Sound pack	37
Boston, shipments of Canned Salmon to, by water	61	Pack on the Pacific Coast, 1897-1914	82	Puget Sound pack by Species, from 1887 to 1914	44
Bradford, A. H., Locating Cannery and Trap Sites in Alaska	70	Review for 1914	80-82	Shipments to Atlantic Ports by waters, 1914	61
British Columbia—Canned Salmon pack in previous years	40	Moses, W. E., Land Scrip; How and by Whom Used	69-70	Shipped, Outlying possessions	46
Canned Salmon pack of 1914	40	Mussels, Canned	105	Siberia pack	39
Frozen Food Fish prepared, 1914	82	N		Siberian pack from inception of industry	45
Halibut arrivals at ports in 1914	101	New York—Canned Salmon exports, Shipments of Canned Salmon to, by water	61	Summary and value of pack by districts	35
Mild cured pack, 1914	80	North Alaska Salmon Co. pack of Canned Salmon, 1914	39	Washington Coast pack	36
Whaling Products, Shore, 1914	108	Northwestern Fisheries Co., Canned Salmon pack, 1914	39	Salmon Canning Industry of Siberia	66, 67
C		O		Salmon Market—Anderson & Coltman, Ltd., Review	59-61
California—Canned Salmon pack of	36	Oil, Fish—Fish, Oil and Fertilizer Companies operating in 1914	107	Gorman & Company Review	58
Fish By-Products, 1914	107	Review	107	Griffith-Durney Co. Review	55-57-58
Mild cured pack in 1914	80	Oregon—Mild-cured pack on Oregon Coast, 1914	80	C. B. Hüet Review	58
Salmon and Steelhead Eggs taken by, 1914	79	Salmon and Steelhead Eggs taken by, 1914	79	Kelley-Clarke Co. Review	55
Can Sizes, Standardization of	45	Oregon Coast, Canned Salmon pack	36	Review of 1914 foreign and domestic	55-61
Charleston, S. C., shipments of Canned Salmon to, by water	61	Outside Rivers, Recapitulation, Canned Salmon pack of, 1914	37	E. F. Stone Review	58-59
Clams—Canned	105	Oysters, Canned	45	San Francisco—Canned Salmon Exports, 1914	50
Pacific Coast canned, pack	105	P		Shipments of Canned Salmon to Atlantic Ports by water	61
Sizes of cans	105	Philadelphia, Shipments of Canned Salmon to, by water	61	Sardines, Canned	105
Codfish—Pacific Coast Catch	103	Philippine Islands, Canned Salmon shipped to	46	Scrip, Land; How and by Whom Used, By W. E. Moses	69-70
Pacific Coast fleet, 1914	102	Portland, Shipments of Canned Salmon from to Atlantic Ports	61	Shad—Canned	105
Columbia, River—Canned Salmon pack from inception of ind.	44	Portland, Me., Shipments of Canned Salmon to, by water	61	Pacific Coast pack of Canned	104
Canned Salmon pack of, 1914	37	Porto Rico, Canned Salmon shipped to	46	Siberia—Canned Salmon pack of	39
Fish By-Products, 1914	107	Prince Rupert, Halibut arrivals at, in 1914	101	Canned Salmon pack from inception of industry	45
Frozen Food Fish Prepared	82	List of Halibut Vessels	101	Salmon Canning Industry of	66-67
Mild-cured pack in 1914	80	Puget Sound, Canned, Salmon Exports from, in 1914	50	Siberian Salmon Salting	79
Crab, Canned	104	Canned Salmon pack by Species from 1887 to 1914	44	Steveston, B. C., Halibut Arrivals at, in 1914	101
D		Canned Salmon pack of, 1914	37	List of Halibut Vessels	101
Deming, Frank L., in Memoriam	64-65	Fish By-Products	107	Stone, B. F., Salmon Market Review	58-59
F		Frozen Food Fish prepared, 1914	82	T	
Fertilizer—Fish, Oil and Fertilizer Companies operating in 1914	107	Halibut Fleet, 1913, 1914	99	Tariff on fish	45
Review	107	List of Halibut Vessels	100	Trap Sites in Alaska, Locating Cannery and, By A. H. Bradford	70
Fish—By-Products, Pacific Coast	107	Mild-cured pack in 1914	80	Trout—Canned	105
Canned, net weights of	61	Shipments of Canned Salmon to Atlantic Ports by Water	61	Shipped fresh from Alaska 1914	101
Food qualities of	75-76	S		Steelhead Trout, Frozen, prepared in 1914	82
Frozen Food Fish prepared	82	Sacramento River, Mild cured pack	80	Tuna, Canned	104
Frozen Fish review	82	Salmon—Alaska Salt Pack	103	Tuna Canning Industry, California, By Russell Palmer	76-77
Miscellaneous fresh, shipped from Alaska	101	Fleet in 1914	46	V	
Miscellaneous salt, shipped from Alaska, 1914	101	Fresh, shipped from Alaska	101	Vancouver, Halibut Arrivals at, 1914	101
Tariff on	45	Frozen, prepared in 1914	82	List of Halibut Vessels	101
Fish Coming Into Its Own	75-76	Pack of Salted, in Alaska, 1868 to 1914	103	Victoria, Halibut Arrivals at, 1914	101
Fish Culture—Alaska Private Hatcheries, Take of Eggs at	79	Salt	103-104	U	
Salmon Hatching Statistics, 1914	79	The Species of Pacific, and the Runs	33-34	U. S. Bureau of Fisheries—Salmon Eggs taken by, 1914	79
Fish Meal in 1914	107	Siberian Salmon Salting	79	W	
Fish Oil in 1914	107	Salmon, Canned, Alaska, Cent. pack	38	Washington Coast—Canned Salmon Pack of, 1914	36
Fleet, Pacific Power Fishing (Ills.)	19-32			Weights and Measures used in South America	46
				Weights of Canned Fish, Net	61
				Whaling, 1914	108
				Products, Shore, in 1914	108



:: How to Increase the Earning Power of Your Plant ::

The use of B. B. Anhydrous Ammonia will increase the earning power of any Refrigerating or Ice-Making Plant. For its definite purity will not permit a contribution to any accumulation of foreign gases in the system. That is why

Bower Brand Anhydrous Ammonia

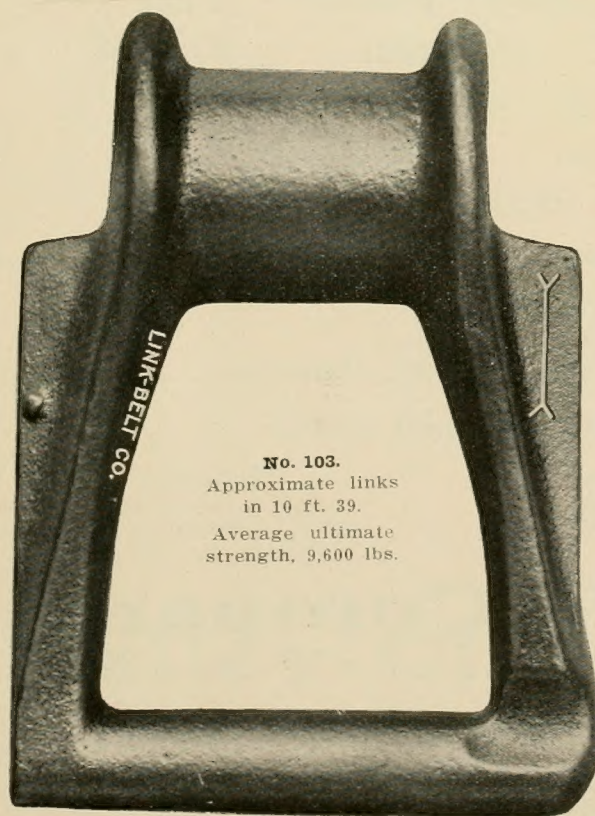
is used year in and year out by the most successful Refrigerating and Ice-Making Plants in the United States. We have embodied facts about B. B. Anhydrous Ammonia in pamphlet form, which we will be glad to send you. No matter how great or small the quantity of ammonia you use, be sure you get this literature. The reading of it will help you and save you money. Write today.

For your convenience we have placed stocks of B. B. Anhydrous Ammonia in all the largest cities. Send your order to agency nearest you and you will be promptly supplied.

HENRY BOWER CHEMICAL MANUFACTURING CO. Philadelphia, Pa.

B. B. AMMONIA CAN BE OBTAINED FROM THE FOLLOWING:

- | | | |
|--|--|--|
| Atlanta: Manufacturers Warehouse Co. | Jacksonville: St. Elmo. W. Acosta | Portland: Northwestern Transfer Co. |
| Baltimore: Wernig, Moving, Hauling & Storage Co. | Kansas City: Crutcher Warehouse Co. | Providence: Rhode Island Warehouse Co. |
| Boston: 120 Milk Street, Chas. P. Duffee. | Liverpool: Peter R. McQuire & Son. | Edwin Knowles. |
| Buffalo: Keystone Warehouse Co. | Los Angeles: United Iron Works. | Rochester: Shipley Construction & Supply Co. |
| J. W. Gilbert. | Shattuck & Nimmo Warehouse Co. | Salt Lake City: Utah Soap Co. |
| Buffalo: Keystone Warehouse Co. | Louisville: Kentucky Consumers' Oil Co. | St. Louis: Pilsbry-Becker Eng. & Sup. Co. |
| Chicago: F. C. Schapper | Union Warehouse Branch. | McPheeters Warehouse Co. |
| Wakem & McLaughlin. | Melbourne: Arkell & Douglas, Inc. | St. Paul: Fidelity Storage & Transfer Co. |
| Cincinnati: Pan-Handle Storage Warehouse. | Memphis: Patterson Transfer Co. | R. B. Whitacre & Co. |
| Burger Brothers Co. | Mexico, D. F.: Ernst O. Heinsdorf. | San Antonio: Oriental Oil Co. |
| Cleveland: General Cartage & Storage Co. | Newark: American Oil & Supply Co. | San Francisco: United Iron Works. |
| Henry Bollinger. | New Orleans: Chas. F. Rantz. | Haslett Warehouse Co., Inc. |
| Detroit: Riverside Storage & Cartage Co., Ltd. | New York: Roessler & Hasslacher Chemical Co. | Savannah: Atlantic Lubricants Co. |
| Newman Bros., Inc. | ShIPLEY CONST. & SUP. CO. | Benton Transfer Co. |
| Dallas: Oriental Oil Co. | Norfolk: Nottingham & Wrenn Co. | Seattle: United Iron Works. |
| Havana: O. B. Cintas. | Oklahoma City: O. K. Transfer & Storage Co. | Dodwell Dock & Warehouse Co. |
| Houston: Texas Warehouse Co. | Philadelphia: Henry Bower Chemical Mfg. Co. | Spokane: United Iron Works. |
| Indianapolis: Railroad Transfer Co. | Pittsburg: Pennsylvania Transfer Co. | Toledo: Moreton Truck & Storage Co. |
| | Mueller & Co. | Washington: Littlefield, Alvord & Co. |
| | Newman Bros., Inc. | |



No. 103.
Approximate links
in 10 ft. 39.
Average ultimate
strength, 9,600 lbs.

The Original Ewart Link-Belt

For Dependable Service

All sizes used by the cannery trade carried in stock for immediate delivery

Demand This Trade Mark on Every Link



It's Your Guarantee of the Original Ewart Chain

Catalog and full particulars on request

Link-Belt Company

Philadelphia Chicago Indianapolis

- | | |
|------------------------------------|-----------------------------------|
| New York.....299 Broadway | Denver, Lindroth, Shubert & Co. |
| Pittsburg.....1501 Park Building | Minneapolis....Link-Belt Sup. Co. |
| Boston.....49 Federal St. | New Orleans....Whitney Sup. Co. |
| St. Louis, Cent'l Nat'l Bank Bldg. | San Francisco....Eby Mch. Co. |
| Wilkes-Barre, 2nd Nat'l B'k Bldg. | Birmingham....Genl. Mch. Co. |
| Seattle.....580 First Avenue S. | Toronto, Can..... |
| Los Angeles, 204 N. Los Angeles S | ..The Can. Link-Belt Co., Ltd. |
| | Portland, Ore. 14th & Lovejoy St. |

Gift to S/V 10-02

THE
Northwestern Fisheries Co.

SEATTLE, WASHINGTON



PACKERS OF

Red Alaska Salmon

THE BRANDS THAT SELL

All Alone	Arch Rock	Binnacle	Deerhead
Equator	Halcyon	Imperial Red	
Jockey	Jubilee	Little Commodore	Mariner
Narwhal	Niagara	Orca	Pennant
Peerless	Pilgrim	Precious	Pioneer
	Primer		Pilot
			Puritan

KINGS

Honor

MEDIUM REDS

Admiral Dewey, Monument, Taku Queen

PINKS

Ameer, Balaeon, Napoleon, Patriot, Balaena

CHUMS St. Bernard



Kelley-Clarke Company

SOLE AGENTS

Main Office, Seattle, Washington, U. S. A.

Also San Francisco, Portland, Spokane, Tacoma, Los Angeles, Boise, Vancouver, B. C.
 New York City—Corby Com. Co.

Some of the WELL KNOWN Packers of Salmon

FOR WHOM WE ARE SOLE AGENTS

WITH

List of Their Labels

ALASKA SALMON CANNERS

Metlakahtla Industrial Company
Alaska Pacific Fisheries Seldovia Salmon Company

PUGET SOUND SALMON CANNERS

Ainsworth & Dunn
Coast Fish Co.

Labels Covering Alaska Salmon

<p>REDS</p> <p>COURTIER TILLIKUM QUEEN OF PACIFIC SEA LION</p>	<p>BASKET MAGNET NIMROD</p>	<p>PINKS</p> <p>RAJAH BUGLE MANDARIN VICTOR BLACK TOP REEF</p>	<p>BALL REVENUE SUNNY SOUTH SURF TARTAR</p>	<p>MEDIUM REDS</p> <p>LUNCHEON EMPIRE GORGON</p>	<p>CHUMS</p> <p>ANTLER SPEAR TROLLING KINGS BLUE ROCK</p>
---	-------------------------------------	---	---	---	---

Labels Covering Puget Sound Salmon

<p>SOCKEYES</p> <p>WHITE CREST RED ROSE DISCOVERY RAINIER SIGNET DINING CAR</p>	<p>SOCKEYES</p> <p>MT. BAKER ROD & REEL A. & D.</p>	<p>COHOES</p> <p>ARENA NORTHERN COAST ROUGH RIVER ELK HEAD RED BELL CRIMSON EMERALD</p>	<p>PINKS</p> <p>BUCCANEER BANNER CHUMS RESOLUTE COTTON PATCH</p>
--	--	--	--

COLUMBIA RIVER SALMON

Union Fishermen's Co-Operative Packing Co.
(In prescribed territory)

Labels Covering Columbia River Salmon

<p>CHINOOKS</p> <p>GILLNETTERS' BEST CO-OPERATORS' BEST and GOLDEN ANCHOR</p>	<p>SILVERS</p> <p>MERIT</p>	<p>CHUMS</p> <p>SEXTANT</p>
--	------------------------------------	------------------------------------

Kelley-Clarke Company

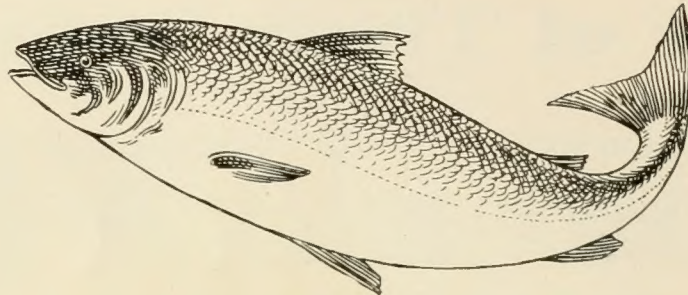
Main Office, Seattle, Washington, U. S. A.

Also San Francisco, Portland, Spokane, Tacoma, Los Angeles, Boise, Vancouver, B. C.
New York City—Corby Com. Co.

Fidalgo Island Packing Co.

—OF—

Anacortes, Washington



Puget Sound

AND

Alaska

SALMON

—CANNED AT—

Anacortes, Wash.

Ketchikan, Alaska

Cook Inlet, Alaska

Brands

SOCKEYE

GOLDEN SCEPTRE
HOLLY LEAF
LAUREL WREATH
GIBRALTAR
RED CLOVER
FAUST
WILD ROSE

RED ALASKAS

HEATHERBELL

COHOES

(Medium Red)

SWEET PEA
CORNFLOWER
FIDALGO
ORCHID
TRIDENT

PINKS

(Humpback)

PRELATE
CLEMATIS
SWEET CLOVER
RED STAR
TULIP
MYRTLE

CHUMS

SALMON FLY
LYNX

SELLING AGENTS

H. BELL-IRVING & CO., Ltd., Vancouver, B. C.

JONES & WILLIAMS

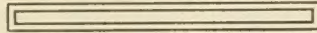
Sellers of SALMON

- ☐ We have live representatives in all important markets.
 - ☐ When you have goods to offer write or wire.
-
-

JONES & WILLIAMS

CHICAGO

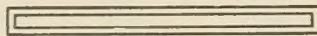
San Juan Fishing and Packing Co. INC.



Wholesale Dealers, Packers and Shippers of

**Fresh, Frozen
Salt, Smoked and
Canned Fish**

Halibut, Salmon, Cod, Trout, Oysters, Crabs and
All Small Fish in Season



SEATTLE, WASHINGTON

Gorman and Company

SEATTLE, U. S. A.

Exclusive Packers and Distributers of

Alaska

AND

Puget Sound

Canned Salmon

All Codes, Cable Address, NAMROG

New York Office:

100 Hudson Street.

Charleston, S. C., Office:

134 E. Bay Street.

National Independent Fisheries Co.

Seattle, Wash., U. S. A.

PRODUCERS OF FRESH, FROZEN and CANNED FISH

Our Canned Salmon Brands:

W. & I. Brand—Sockeyes Pink Beauty Brand—Pinks
Suffragette Brand—Medium Reds Old Scout Brand—Chums

SANITARY CANS ONLY

EXTRA CHOICE FROZEN HALIBUT AND SALMON OUR
SPECIALTY

NATIONAL INDEPENDENT FISHERIES COMPANY Seattle, Wash., U. S. A.

E. H. HAMLIN

All Grades

of

Puget Sound, Alaska, British
Columbia, Columbia River,
Oregon and Washington
Coast

Canned Salmon

206-207 Mutual Life Bldg., Seattle, U. S. A.

Salmon Packing Co.

(LIMITED)

Packers and Importers

Commission Merchants of

Mild Cured SALMON

Plant in Ketchikan, Alaska
Office, 524 Pacific Block, Seattle
Head Office—HAMBURG, Alsterdamm 26.

Telegraph Address—*Salmpack.*

C. M. PETTIBONE

Puget Sound and Alaska

Canned Salmon

Packers Direct Selling Agents

High Grade Box Shooks a Specialty

Office:—42-Story L. C. Smith Building

SEATTLE, U. S. A.

Cable Address:
"PETTIBONE"

Codes Used:
Armsby, Western Union, A. B. C. 5th Edition

C. B. HUIET (main office) Charleston, S. C.

WAREHOUSEMAN AND REFORWARDING AGENT. Controlling extensive warehouse facilities at Charleston, S. C., now the principal South Atlantic port to which Pacific Coast products are consigned for distribution throughout several Southern States. Also controlling excellent facilities at the ports of Norfolk, Va., Wilmington, N. C., Savannah and Brunswick, Ga., Jacksonville and Tampa, Fla., and New Orleans, La.

Our warehousemen are well trained men of long experience with corps of capable clerks and efficient laborers, insuring prompt and careful handling from shipside into warehouse and prompt despatch from shipside or warehouse to interior destinations.

Our contracts for insurance and transfers enable us to offer minimum rates for these services.

We are also sales agents for canners and packers, vigorously soliciting business from wholesale grocers throughout the States of North Carolina, South Carolina, Florida, Georgia, Alabama, Tennessee, Louisiana, Mississippi, Arkansas and Kentucky.

We keep in touch with the trade by market letters, correspondence, traveling salesmen, and in larger interior markets, either maintain branch offices or operate through popular local brokers.

Henry W. Peabody & Co.

Exporters and Importers

CANNED GOODS A
SPECIALTY

SAN FRANCISCO NEW YORK
London Liverpool Sydney Capetown

1892

Cable Address: "Brady"

1914

Brady & Company

Shippers of

Canned Salmon
Fertilizers Fish Oils
Dry Salted Herring

SEATTLE - - - WASHINGTON

Johnson, Lieber & Van Bokkelen, Inc.

SEATTLE, WASH.

BROKERS

Tacoma, Wash. Spokane, Wash. Vancouver, B. C.
Portland, Oregon Boise, Idaho

DEALERS IN

Canned Salmon

SALT, all grades

PIG TIN

Jacob J. Peres & Co.

Established 1859

BROKERS

Memphis, Tenn.

ANDERSON & COLTMAN, Ltd.

Canned Salmon

LIVERPOOL: 64 Stanley St.

LONDON: 5 Philpot Lane

GLASGOW: 5 Dixon St.

Telegraphic Addresses:

London: "FONTANELS"
Liverpool: "ANACMEON"
Glasgow: "AGENCIES"

Codes Used:

A B C, 4th and 5th
AL. LIEBER'S
C F A. ARMSBY'S
WESTERN UNION

Salmon Cannery Site For Sale

On the North Passage of the Skeena River, 14 miles east of Prince Rupert, B. C., on the north shore of Smith Island, opposite the Cassiar Cannery, 1/2 mile from Grand Trunk Pacific R. R., comprising 16 1/4 acres, over 20 chains Skeena River frontage. Fresh water and timber for piling and boom on the ground. This is wild land. Salmon fishing right goes with this place in accordance with the fishing laws of the Dominion of Canada. Three salmon canneries—3 miles west, 5 and 14 miles east. Price \$2,500. Owner, G. A. Poole, Box 35, Smithers, B. C.

The American Fish and Oyster Co., Inc.

556 Clay Street, San Francisco

Packers of SACRAMENTO RIVER and MONTEREY BAY
MILD CURED SALMON

PRODUCERS and SHIPPERS of FRESH FISH and OYSTERS

Fisheries and Packing Plants, Pittsburg and Monterey, Calif.

Oyster Beds, Tomales Bay, Cal.

Cable Address: "Corbission"

CORBAY COMMISSION CO. BROKERS

Canned Salmon of All Kinds

LIBERAL ADVANCES MADE ON CONSIGNMENTS

100 Hudson St. - - - New York City

SALMON

E. O. CORNISH

VANCOUVER, B. C.

COMMISSION

and INSURANCE AGENT

AGENT FOR RELIANCE MARINE INSURANCE CO., LTD.
OF LIVERPOOL

THINKET PACKING COMPANY

PORTLAND, ORE.

CANNERY AT FUNTER BAY, ALASKA

MAIN OFFICE, 405 WELLS FARGO BUILDING

"Autumn" "Red Rose"
HIGH GRADE RED ALASKA
"Tepee"
STANDARD MEDIUM RED

Salmon Brands

"Buster" "Peasant" "Thinket"
BEST GRADE PINK
"Suwanee"
Best Grade Chum

JAS. T. BARRON, President and Manager
M. G. MUNLY, Secretary
C. T. WHITNEY, Manager Sales Department

WE GUARANTEE OUR BRANDS

Lindenberger Packing Company

CANNED SALMON

OUR BRANDS

RED
BOHEMIAN
MT. McKINLEY

MEDIUM RED
HOUSEHOLD

PINK
EVERYBODY'S
TABLE PRIDE

CHUM
BANJO

CANNERIES AT CRAIG and ROE POINT, ALASKA

Main Offices

L. C. SMITH BUILDING

SEATTLE, WASH.

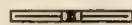
ROBINSON FISHERIES CO.

PRODUCERS, CURERS AND
DISTRIBUTERS OF

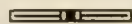
CODFISH



PACKED IN ANY STYLE DESIRED
PURCHASER'S BRAND WHEN REQUESTED



We make a specialty of ABSOLUTELY BONELESS
CODFISH packed in 1-lb. paper cartons, 24 to the case,
also in small wooden boxes, 24-1s, 12-2s, 12-3s, or 12-5s
to the crate; fine for family trade.



Also manufacturers of High Grade

Fish Oil - Fish Glue
Fish Fertilizer

ANACORTES

WASHINGTON

DEMING & GOULD COMPANY

Packers and Sellers of

Canned, Barrelled and Smoked

SALMON

SOLE AGENTS FOR THE

Pacific American Fisheries	Bellingham, Washington
Bellingham Canning Company	Bellingham, Washington
Apex Fish Company	Anacortes, Washington
Pacific American Fisheries	Anacortes, Washington
Blaine Packing Company	Blaine, Washington
Friday Harbor Packing Company	Friday Harbor, Washington
Key City Packing Company	Port Townsend, Washington
Hoonah Packing Company	Hoonah, Alaska
Pacific American Fisheries	Excursion Inlet, Alaska
Pacific American Fisheries	King Cove, Alaska
Pacific American Fisheries	Port Moller, Alaska

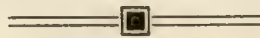
Quality Our First Consideration

Chicago, Ill.

Bellingham, Wash.

G. F. SCHLOETELBORG

SEATTLE, WASH., U. S. A.



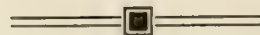
PACKER AND DISTRIBUTOR

OF

ALL GRADES OF

CANNED, MILD-CURED, SALTED

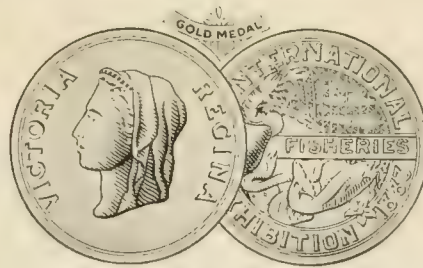
SALMON



CABLE ADDRESS: GROBLET

"NETS, TWINES AND FITTINGS FOR ALL THE FISHERIES"

Gold Medal



Cotton Netting

TRADE MARK

Pound Nets, Trap Nets, Pots and Spillers, Purse Seines, Haul Seines, Gill Netting, Gill Nets, Fyke Nets, Minnow Netting, Etc., Etc.

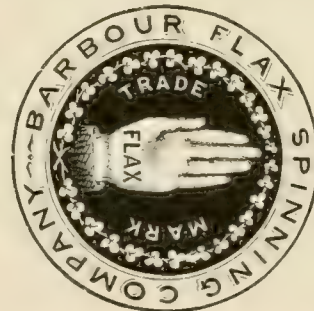
Handlers of
California Cotton Mills Co.'s Seine Twine and Cotton Rope, Cotton Wrapping Twines, Mops, Etc.

TARRED LINES OF QUALITY

Burnham's Lines
L. A. Burnham & Co.
TRADE MARK
GLOUCESTER, MASS.

"ASK THE CAPTAIN WHO HAS USED THEM."

Barbour's
Double Knot



Salmon
Gill
Netting

BARBOUR'S AND FINLAYSON'S
NET THREADS

THE LINEN THREAD CO.

443 MISSION ST.

SAN FRANCISCO, CAL.

PACIFIC COAST SELLING AGENTS FOR

Barbour Flax Spinning Co.

American Net & Twine Co.

W. & J. Knox Net & Twine Co.

Gloucester Net & Twine Co.

Dunbarton Flax Spinning Co.

PORTLAND BRANCH

308 CONCORD BLDG.

New York

Boston

Philadelphia

St. Louis

Baltimore

Chicago

Cincinnati

The Product Of Experience



Do you believe that years of experience in studying the lubricating requirements of all types of machinery has qualified us to determine the oil most suitable for motor boat lubrication?

Do you believe that years of experience in the manufacture of hundreds of high-grade lubricating oils has made us competent to produce such an oil? Then we say to you unqualifiedly that Zerolene is the best motor oil we can make. Experts on lubrication, we recommend it as an efficient oil for your boat.

ZEROLENE

The Standard Oil for Motor Boats



Dealers everywhere, and at our
many water front stations

**Standard Oil
Company**
(California)

Pacific Fisherman Year Book

Published by Pacific Fisherman
1321 Smith Building.

MILLER FREEMAN, Publisher.

JOHN N. COBB, Editor.

RUSSELL PALMER, Manager



PACIFIC POWER FISHING FLEET



5350

THE most surprising feature in the history of the fisheries of the Pacific Coast has been the remarkable development in the use of power boats in various branches of the industry.

Fifteen years ago the gasoline powered boat was a curiosity in these waters. The majority of the cannery tenders were operated by steam, the rest using sails. All of the salmon fishing vessels and boats used sails or oars as motive power. The halibut fleet was just then beginning to assume importance, but with the exception of a couple of steamers, all were sailing vessels, while in the minor fisheries sail or oars were in use exclusively. This slow and uncertain means of progression greatly retarded the development of the industry, and the demand for something better rapidly assumed an insistent phase.

For some years the progress made by the gasoline engine was slow. The fishermen were skeptical of its utility and staying qualities under the hard and strenuous demands of the industry. The early engines were lightly built, causing frequent breakdowns, and as most of the parts then had to be supplied from the East, long and expensive delays would be caused while waiting for the new parts. Manufacturing began at an early

date on this coast, and as the engines were made stronger, and with more regard to the necessities of the industry, and agencies and repair shops established on this coast, where repairs could be made and supplies obtained very quickly, the gasoline engine became more and more popular.

As the introduction of the gasoline engine became more general the need of engines to burn a cheaper grade of fuel became apparent. The engine builders soon had their engines so constructed that they would burn the cheap distillates. Then came the Diesel engine, which was designed to burn the cheaper grades of oil, thus permitting of their operation at a vastly decreased cost.

The power boat first came into general use in the salmon industry, especially in cannery tenders. The steam tenders rapidly passed into the discard and today but few are to be seen anywhere on the coast, and these few are almost invariably survivals of the early days. The fishermen early saw the possibilities of the motor, by whose aid the gill netter and purse seiner could get out to the banks and back home again with their catch without regard to the state of the wind or tide, thus bringing in fish that were fresh, and its use spread amongst them with great rapidity so far as the coastal states were concerned.

In the halibut industry the use of sails as motive power had greatly hampered and retarded the expansion of the fishery. Being dependent for its movements upon the direction of the wind, the fleet was very much restricted in its range. Even after a vessel secured a cargo it was not certain that she would be able to reach her home



POWER FISHING BOATS AT ANCHOR IN NEAH BAY, WASHINGTON.
 This is an Important Rendezvous for the Large Fleets of Salmon Purse Seine, Gill Net and Trolling Boats.



FISHERMEN'S WHARF, SAN FRANCISCO.
 The Greater Part of the Boats Shown are Engaged in the Crab Fisheries.



SAN PEDRO FISH WHARF.
 This is One of the Principal Headquarters in California for the Tuna Fishermen.



SEATTLE FISHERMEN'S DOCK.
 This Is the Most Commodious and, When Finished, Will Be the Largest and Best Equipped Fishermen's Dock on the North American Continent.



SEATTLE FRESH HALIBUT MARKET.
 At Pier 8 the Halibut Schooner Catches and the Halibut Brought From Alaska by the Regular Steamers are Sold. More Halibut is Sold Here Than at Any Other One Place in the World.

port before the catch spoiled. After one or two of the fleet had proved the utility of the gasoline engine the others were quick to adopt it, and in a few years the sailing halibut schooner had be-

world. The early power boats ranged around 75 feet in length, but today vessels over 100 feet in length are to be found in the fleet, and as the vessels extend their range their size will have to be increased in order to enable them to carry larger cargoes.

The codfish industry has lagged behind in the utilization of the gas engine. This is due mainly to the fact that the larger vessels usually anchor on the banks and send out their dories, moving the vessel only when the fish show signs of exhaustion in the spot being fished. At the Alaska stations are to be found power vessels of vary-



FISHING VESSELS AT PETERSBURG, ALASKA.

come a thing of the past. The extension of the range of the fleet gave it a vastly larger field to cover and led to a great increase in the fleet, with the result that today four-fifths of the halibut of the world is taken on our Pacific banks.

It is in this industry that the designer of hulls and the maker of gas engines have worked hand in glove to produce a type of power fishing vessel which will compare favorably with any in the



KETCHIKAN'S FISHERMEN'S FLOAT.

ing types used in freighting between the stations and in fishing during the summer months. The Union Fish Co. has built a large power schooner



SELDOVIA SALMON CO'S TENDER GLOVINA.
This Is the Most Recently Constructed of the Cannery Tenders.



PACIFIC AMERICAN FISHERIES TENDER GLENWOOD.



**STERN-WHEEL STEAMER W. H. BANCROFT, NORTH-
WESTERN FISHERIES CO.**



KUIU ISLAND PACKING CO'S TENDER KUIU QUEEN.



GORMAN & CO'S CANNERY TENDER SHAKAN.



PACIFIC AMERICAN FISHERIES CANNERY TENDER WARRIOR.
This is the First Cannery Tender to be Equipped With a Diesel Engine.

which it uses in transporting supplies to the stations and in bringing back the station catches of codfish. During the last three years a number of dories and other boats have been fitted with engines for fishing on the Alaska station banks.

In the oyster, clam, crab and shrimp fisheries the gasoline engine has been steadily increasing in popularity and today is in almost universal use.

The crab fishermen of San Francisco and Humboldt bays universally use power boats, these proving a necessity when fishing in the open ocean.

In southern California a large fleet of power vessels engage in tuna fishing for the canneries located in that section, also for the fresh fish markets of that section.



APEX FISH COMPANY'S CANNERY TENDER SUPERIOR.
At the Time It Was Launched This Vessel Was the Largest Cannery Tender Afloat.



LUMMI BAY PACKING COMPANY'S CANNERY TENDER LUMMI.



PACIFIC AMERICAN FISHERIES STEAMER WINDBER.

This Vessel Is Employed in Carrying Supplies to the Canneries and Canned Salmon to the Atlantic Coast Through the Panama Canal.

The supplying of the many and varied wants of the great fishing fleets of this coast keeps many manufacturing establishments and thousands of workmen busy. In the old days the fishermen were compelled to quit fishing, possibly when a big run was on, and run to the nearest large town, requiring sometimes a number of hours, in order to secure supplies of provisions, gasoline or distillate, ice, or to have repairs made. In these modern days the supply men in a number of sections own power boats in which they cruise up and down, ready to sell the fishermen anything from a needle to a whole beef. The fuel com-



PURSE SEINER UNCLE JOHN.



PURSE SEINER NORTH STAR.

Some of the big packing companies have power fire tugs for the more efficient protection of their fleets. Floating power machine shops, aboard which almost any ordinary repairs necessitated by power boats can be made, are ready to range alongside when the distress flag is raised.

For the purpose of safeguarding our valuable fisheries the federal and various state governments have steamers and power boats, generally of a very modern type.

panies have central stations located adjacent to the fishing grounds, and also have tank boats running hither and thither, ready to fill a fishing vessel's tanks with "dope" in a few minutes' time.

The importance of the power fisherman as an economic factor is being awarded increasing recognition from year to year. Municipalities have grown to realize the advantages to be de-



ALASKA PACKERS ASSOCIATION'S PURSE SEINERS PARROT AND PIGEON.



COLUMBIA RIVER GILL NET BOAT.

rived from serving as a base of operations for the fishing flotilla. The owners of these motor fishing vessels are on the average fine sturdy fellows making the finest class of citizenry. They are industrious and therefore prosperous, and their aggregate purchasing power is something to be respected.

Two cities, San Francisco and Seattle, have already made special port arrangements, de-



PUGET SOUND TROLLING BOAT.

signed to attract the power fishing vessel operators by affording him every convenience in the dispatch of his business.

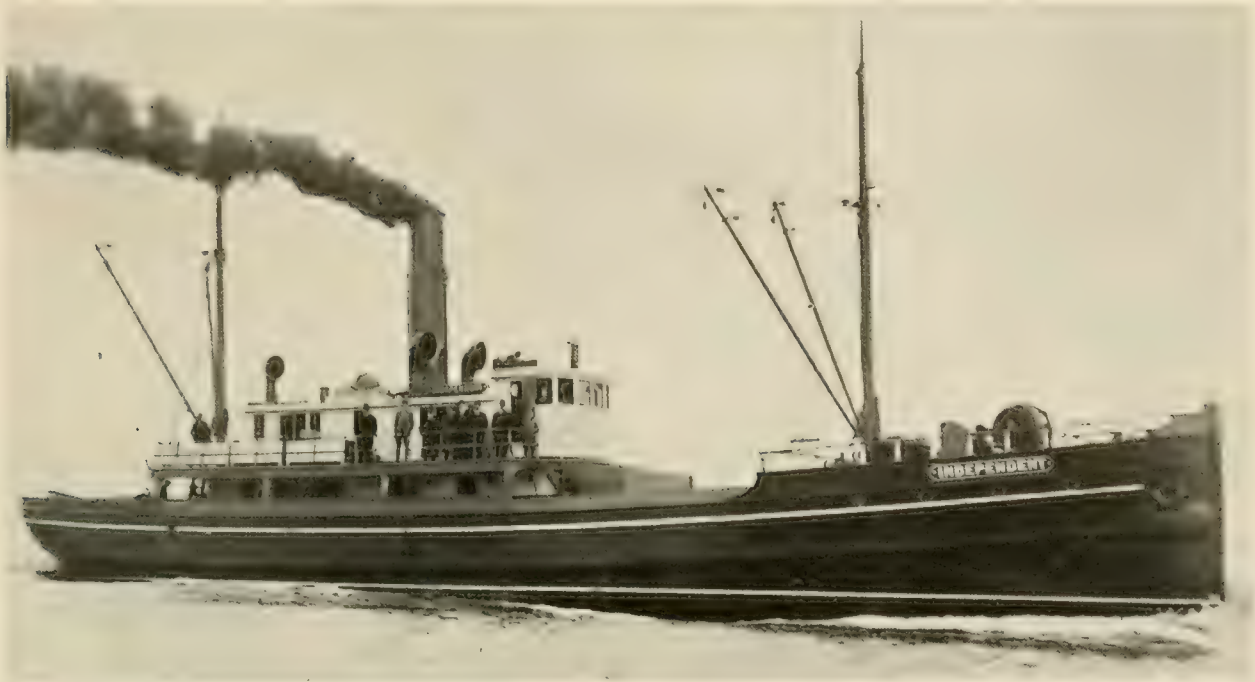
San Francisco arrangements ante-date those of Seattle, but are on a smaller scale and are less complete. In a basin near the quarantine station are located a series of small wharves



COLUMBIA RIVER POWER BOATS.



THELMA, A COMBINATION HALIBUT AND PURSE SEINE BOAT.



NATIONAL INDEPENDENT FISHERIES COMPANY'S HALIBUT STEAMER INDEPENDENT.

in sheltered water. Nearby are the headquarters of the crab and rock cod fishermen's unions with their cooperative markets. Adjacent are private shops which supply the fish boats and repair them. Several hundred fishing boats of the same type utilize this arrangement.

In Seattle the Port Commission in 1913 ac-

quired a large tract of land on Salmon Bay, a point which had always been a natural gathering place for one type of Puget Sound fishing vessel, viz., the purse seiner. On this site was erected a special fisherman's wharf from which two floats, each 1,000 feet long, ranged out into the bay. On the shore end the commission



POWER HALIBUT SCHOONER REPUBLIC.

This is One of the 125 Motor Vessels Operating Out of a Single Port—Seattle



POWER HALIBUT SCHOONER TYE.

erected a two-story building containing a number of small compartments to be rented to fishermen for the storage of gear, also a special meeting room for the use of the fishermen's associations. Additional facilities such as marine ways are now under construction. The cost of the improvement when complete will be nearly \$400,000, and it will be the most comprehensive of its sort undertaken anywhere in the country.

At San Pedro, Cal., much has been accomplished in furnishing facilities to the fishing fleets, and the port authorities are now engaged in developing these to an even greater extent.

Ketchikan has always appreciated the value to it of the fishermen and the trade they bring, and has erected a special float in the "new town" section for their use. Here they are conveniently situated for taking aboard supplies, etc.

Petersburg, which has been the principal shipping point for the halibut schooners when operating in Alaska, has several large house and work floats, besides two docks, at which the fish may be landed for icing, boxing and shipping, while supplies of fuel, provisions, etc., may be easily taken aboard.



A TYPICAL HALIBUT MOTOR SCHOONER.

At Wrangell a special float has been constructed for the use of power boats, and the same is true of Juneau.

Everett and Tacoma, Wash., have in view the matter of building special docks for the fishing fleets, and it is to be hoped that their plans will come to a head in the near future.



CANADIAN FISHING COMPANY'S HALIBUT STEAMER FLAMINGO.



SAN JUAN FISHING & PACKING COMPANY'S HALIBUT STEAMER STARR.



POWER HALIBUT SCHOONER ALASKA.

Astoria, Oregon, which is the headquarters for a very large fleet of power gill net boats, has not yet taken up the matter of a special dock for their exclusive use, but it is probable that the Astoria Port Commission will take up this matter in the near future.



UNION FISH COMPANY'S POWER TRANSPORTER GOLDEN STATE.



CALIFORNIA'S FISH PROTECTION CRUISER QUINNAT.



U. S. BUREAU OF FISHERIES STEAMER ALBATROSS.



UNION FISH COMPANY'S POWER CODFISH SCHOONER PIRATE.



WASHINGTON'S FISH PROTECTION CRUISER GOV. ELISHA F. FERRY.



SEATTLE OYSTER & FISH CO.'S SHRIMP DREDGER OCTOO.



CALIFORNIA TUNA POWER BOATS. There Are a Large Number of These Motor Vessels Operating in Southern California.



ROBINSON FISHERIES CO.'S TENDER CHALLENGE. This and the Two Vessels Shown Below Are Typical Carriers of Salmon Offal.



BRENNER OYSTER COMPANY'S TENDER OYSTERMAN. A Typical Oyster Carrier.



CANNERS BY-PRODUCTS' TENDER VISCERA NO. 1.



SEA BEACH PACKING WORKS' LAUNCH CLAM. A Typical Motor Vessel for the Transporting of Clams.



RUSSIA CEMENT COMPANY'S TENDER ALMARA.



NORTHERN OYSTER CO.'S DREDGER BAY POINT.



**AMERICAN CAN COMPANY'S REPAIR LAUNCH
CANCO.**

There is Maintained Aboard This Vessel a Machine Shop, With Competent Machinist, Who Is Ready at All Times to Aid Users of the Company's Machinery.



**ALASKA PACKERS ASSOCIATION'S FIRE TUG
PHOENIX.**

This Vessel is in Use at the Association's Alameda, Cal., Station, Where Its Immense Fleet is Moored During the Winter Season.



**STANDARD OIL COMPANY'S SUPPLY LAUNCH
PETROLEUM II.**

This Vessel Cruises Amongst the Fishing Vessels of Puget Sound Ready to Supply Them With Fuel.



TRAVELING POWER LAUNCH BUTCHER.

This Vessel is a Traveling Butcher Shop, and Operates Amongst the Fishing Boats of the Sacramento River.



FRANK WRIGHT'S PLEASURE LAUNCH OLYMPIC.
The Kind of Craft Every Canneryman Hopes to Own Some Day.

5351

Comparative Review of the Pacific Coast Canned Salmon Pack—Season 1914

SUMMARY OF CANNED SALMON PACK, 1914.

Districts—	Cases	Value
Alaska	4,067,832	\$19,719,942
Puget Sound	792,860	5,095,839
Columbia River	455,500	3,707,770
Sacramento River	17,315	157,750
Outside Streams	200,236	1,286,635
British Columbia	1,111,039	7,654,268
Siberia	136,500	999,900
Total	6,781,282	\$38,622,104

The salmon canning season of 1914 has now become a matter of history, and enjoys the distinction of being next to the largest pack ever put up on this coast, the largest having been in 1913. The pack, exclusive of Siberia, totalled 6,644,782 cases, a decrease of 1,418,665 as compared with 1913.

An odd feature of the year's total pack is that Cohos, Chums and Kings increased, while Pinks and Sockeyes show large decreases.

The shortage in Sockeyes was due to the small runs which appear in Puget Sound the three years following the big run. The last big run occurred in 1913 and the next will not occur until 1917. Despite the predictions of wisecracks, an excellent run of Reds appeared in Bristol Bay, while Reds were more plentiful than usual in Southeast Alaska. The Blueback pack on the Columbia river was the largest since 1898, and proved one of the sensations of the season. The pack was 36,190 cases as compared with 11,152 cases in 1913. The cannerymen had begun to think that the Blueback run in that river was nearing its end, but the results of last season has greatly encouraged both packers and fish culturists.

Owing to the lack of demand for mild-cured salmon, due to the war closing the principal market for this product, most of the catch of Kings or Chinooks was canned, causing the total pack to increase from 285,472 cases in 1913 to 509,100 cases in 1914, an increase of 223,628 cases. Two canneries on the Sacramento river put up a small pack between them, a most unusual thing of recent years, as practically all of the catch is usually marketed in a mild-cured, frozen or fresh condition.

The great disappointment of the season was the very short pack of Pinks. This was the off year for Pinks on Puget Sound, the run occurring only every other year, and, of course, the packers had reckoned upon this. It was hoped that a part of the shortage from Puget Sound would be made up by an increased pack in Southeast Alaska, but to the surprise of everybody the run in that section was very short

and only about one-half the usual pack was put up. There was a considerable increase in the run in Central Alaska, but the total there is too small to materially affect the pack. The total pack in 1914 was 1,222,013 cases as compared with 2,392,166 cases in 1913, a shortage of 1,170,153 cases.

As, owing to the very short pack in 1913, the market for Chums or Ketas had been cleaned up long before the opening of the season, every effort was made to put up a good pack, with the result that 1,200,433 cases were packed. More would have been packed had it not been for the short run in Southeast Alaska.

The pack of Medium Reds, Cohos or Silversides increased over that in 1913, although it was less than was packed in either 1912 or 1911. The pack in 1913 was a very short one, thus causing a demand which justified an increased pack in 1914.

Owing to the lack of demand from Europe for frozen Steelheads, more were canned than is usually the case, the pack increasing from 9,539 cases in 1913 to 11,292 in 1914. The total pack of this species is so small now that it has ceased to be a factor in the market.

In the general totals Alaska is shown to have produced the largest pack in its history, the pack exceeding that of 1912, the next largest year, by 7,703 cases. The pack on the Columbia river is the largest since 1911. The pack in the outside streams also increased considerably. The pack of Puget Sound shows a considerable falling off, being 1,790,603 cases less than in 1913. The Sacramento river once more appears as a factor in the Canned Salmon market, due to lack of market for mild-cured Chinooks compelling the packers to put them up in cans. British Columbia shows a small falling off as compared with 1913, the big year, but a considerable increase as compared with the three preceding years. This year we publish detailed statistics of the Canned Salmon pack in Siberia since the inception of the industry. Despite an increase of one cannery and the enlargement of several of the plants, the pack increased but 3,100 cases over that in 1913, due to a small run of Red salmon.

CANNED SALMON PACK BY GRADES, 1911-14.

GRADE	1914	1913	1912	1911
Coho, Silverside, Med. Red...	579,980	300,033	621,817	676,141
Humpback, Pink	1,222,013	2,392,166	1,756,128	2,373,595
Keta, Chum	1,200,433	432,812	808,030	592,790
King, Spring, Chinook	509,100	285,472	426,338	927,714
Red, Sockeye, Blueback	3,121,964	4,643,425	2,544,435	1,869,927
Steelhead	11,292	9,539	7,198	8,618
Total	6,644,782	8,063,447	5,956,953	6,140,887

* The Siberian pack is not included.

1914—PACIFIC COAST CANNED SALMON PACK—1914

DISTRICT	KINGS, SPRINGS, CHINOOKS			REDS, SOCKEYES, BLUEBACKS			MEDIUM REDS, COHOS SILVERSIDES			PINKS, HUMPBACKS			KETAS, CHUMS			STEEL-HEADS		TOTAL Full cases
	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	
Alaska	42,701	2,033	3,431	2,095,206	57,752	48,616	152,929	283	4,580	986,455	9,265	2,103	656,537	5,568	373	.....	.....	4,067,832
Puget Sound	10,462	10,918	4,664	12,664	169,907	152,659	105,334	26,780	19,779	126	332	434	273,871	627	4,303	.....	.....	792,860
Columbia River	50,913	130,706	107,845	879	2,016	33,295	27,273	24,116	18,380	.....	.....	.....	46,134	1,734	1,417	2,101	8,691	455,500
Sacramento R.	7,000	10,313	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,315
Outside Streams	46,620	20,063	12,101	1,681	.....	10,393	56,293	12,033	12,087	2,248	344	366	24,692	90	613	500	.....	200,236
Total American pack	157,696	174,035	128,041	2,110,430	229,675	245,163	341,739	63,214	54,826	988,829	9,941	2,903	1,001,234	8,019	6,706	2,601	8,691	5,533,743
British Columbia	30,293	4,106	14,929	96,426	96,872	343,398	84,725	11,999	23,477	190,784	13,462	16,094	179,833	2,571	2,070	.....	.....	1,111,039
Total Pack of Entire Coast	187,989	178,141	142,970	2,206,856	326,547	588,561	426,464	75,213	78,303	1,179,613	23,403	18,997	1,181,067	10,590	8,776	2,601	8,691	6,644,752

* Includes 4,993 cases of ½-lb. dats.

1914—CALIFORNIA CANNED SALMON PACK—1914.

NAME	CANNERY LOCATION	CHINOOKS		SILVERS		TOTAL Full Cases
		1-lb. Talls	1-lb. Flats	1-lb. Talls	1-lb. Flats	
Westbrook, H. E.	Smith River .....	.....	.....	500	2,500	3,000
Klamath River Packers Assn.	Klamath River .....	.....	7,500	.....	3,500	11,000
Carquinez Packing Co.	Sacramento River .....	.....	3,315	.....	.....	3,315
Sacramento River Packers Assn.	Sacramento River	7,000	7,000	.....	.....	14,000
Total		7,000	17,815	500	3,500	31,315

1914—OREGON COAST CANNED SALMON PACK—1914.

NAME	CANNERY LOCATION	CHINOOKS			SILVERSIDES			CHUMS	TOTAL Full cases
		1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.		
Barnes, F. C., & Co.	Waldport	2,438	876	.....	4,474	323	.....	55	8,166
Barnes, F. C., & Co.	Yaquina Bay	Did not operate	.....	.....	.....	.....	.....	.....	.....
Bay City Storage & Fisheries Co.	Bay City	1,002	932	.....	1,696	.....	.....	5,895	9,437
Coquille River Fish. Co-op. Pkg. Co.	Prosper .....	.....	.....	.....	6,668	.....	1,294	.....	7,932
Elmore Packing Co.	Umpqua, Alsea, Siletz, Nestucca, Nehalem	28,473	2,931	7,814	8,881	.....	.....	.....	38,321
Kyle, Wm., & Sons.	Florence .....	.....	.....	.....	.....	.....	.....	.....	9,266
Macleay Estate	Wedderburn .....	.....	4,575	2,393	.....	881	104	.....	7,925
Oregon Fisheries Co.	Bay City	1,800	1,000	.....	1,001	.....	1,345	900	6,135
Prosper Canning Co.	Prosper .....	.....	.....	.....	3,232	.....	913	.....	4,165
Tallant-Grant Packing Co.	Empire City .....	.....	.....	.....	500	4,800	1,000	.....	9,300
Tallant-Grant Packing Co.	Florence .....	.....	.....	.....	Did not operate	.....	.....	.....	.....
Southern Oregon Co.	Marshfield .....	.....	.....	.....	Did not operate	.....	.....	.....	.....
Umpqua River Co-op. Packing Co.	Gardner .....	.....	.....	.....	6,876	.....	.....	.....	6,876
Union Fishermen's Co-op. Packing Co.	Wheeler	1,797	.....	.....	5,710	.....	1,305	.....	8,812
Total		35,512	9,414	10,178	39,147	6,007	8,010	8,067	116,335

1914—WASHINGTON COAST CANNED SALMON PACK—1914

NAME	CANNERY LOCATION	CHINOOKS			BLUEBACKS		SILVERSIDES			PINKS			CHUMS			STEEL-HEADS 1-lb. Talls	TOTAL Full Cases
		1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats 8 doz.		
F. C. Barnes & Co.	South Bend	1,302	.....	.....	.....	.....	2,513	.....	.....	.....	.....	2,064	.....	.....	.....	5,879
Chetlo Harbor Packing Co.	Chetlo Harbor	300	.....	.....	.....	.....	1,830	.....	.....	.....	.....	1,083	.....	.....	.....	3,213
Elmore Packing Co.	Aberdeen	5,716	2,191	460	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,367
Grays Harbor Packing Co.	Aberdeen	Not operated in 1914	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greelford Packing Co.	Westport .....	.....	.....	.....	.....	.....	600	.....	.....	25	.....	100	.....	.....	.....	725
Hoquiam Packing Co.	Hoquiam	927	.....	63	.....	.....	3,200	.....	138	785	.....	32	2,550	.....	325	8,218
Kurtz, W. W.	Moclips	381	.....	5	.....	6,316	510	.....	.....	.....	.....	168	.....	.....	.....	7,649
Moclips Canning Co.	Not operated in 1914	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morse Canning Co.	Mora .....	.....	161	221	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,968
Pacific Fisheries & Pkg. Co.	Aberdeen	1,323	766	651	.....	.....	3,391	1,273	554	1,335	192	284	5,593	.....	.....	15,310
Pacific Fisheries & Pkg. Co.	Moclips	4	1	651	1,681	4,077	493	315	386	294	14	.....	643	.....	13	7,747
Superior Trading Co.	Queets	1,000	175	.....	.....	200	1,800	.....	.....	.....	.....	1,020	.....	.....	500	4,695
Union Fishm's Co-op. Pk. Co.	Aberdeen	Not operated in 1914	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Willapa Harbor Fish Co.	Willapa Harbor	500	.....	500	.....	.....	2,300	.....	.....	.....	.....	3,400	.....	.....	.....	6,700
Total		11,108	3,149	1,923	1,681	10,593	16,556	2,528	1,577	2,248	344	366	16,625	90	613	500	69,901

1914—RECAPITULATION CANNED SALMON PACK OUTSIDE RIVERS—1914.

DISTRICTS	CHINOOKS			BLUEBACKS		SILVERSIDES			PINKS			CHUMS			STEELHEADS		TOTAL
	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	Full Cases	
Washington Coast	11,108	3,149	1,923	1,681	10,593	16,556	2,528	1,577	2,248	344	366	16,625	90	613	500	69,994	
Oregon Coast	35,512	9,414	10,178			39,147	6,007	8,010				8,067				116,735	
California Coast		7,500				500	3,500	2,500								14,000	
Total	46,620	20,063	12,101	1,681	10,593	56,203	12,035	12,087	2,248	344	366	24,692	90	613	500	200,236	

1914—COLUMBIA RIVER CANNED SALMON PACK—1914

NAME	CANNERY LOCATION	STEELHEADS			CHINOOKS						SILVERSIDES			BLUEBACKS			CHUMS			TOTAL	
		1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	Fancy			Standard			1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.		Full Cases
Altoona Pkg. Co.	Altoona, Wn.				163	6,350	12,900	785	250	2,575			750			725					24,500
Booth Fisheries Co.	Astoria, Or.				5,205	7,650	8,726						865	3,202	2,336				1,612		29,596
Barbey Fish Co.	Portland, Or.							1,505					2,401						5,611		9,517
Columbia River Packers Assn.	Astoria, Or.																				
	Rooster Rock, Or.																				
	Eagle Cliff, Wash.	2,244	1,918		1,405	*31,821	23,371	12,772	9,815	3,733	4,070	8,828	2,751	879	904	12,811	15,502	1,734	1,290		135,857
Hansen, David	Astoria, Ore.					2,100	1,800					300	200			824	600				5,000
Megler, J. G., & Co.	Brookfield, Wn.				469	5,438	2,271	2,243	167		4,200	1,213	1,821				10,480			25	29,151
McGowan, P.J., & Sons	Ilwaco, Wn., & Warrendale, Or.	1,077	529	893	2,432	13,976	5,294				4,566	56	2,126	1,112	7,366	1,637			93	41,157	
Pillar R'k Pkg. Co.	Pillar Rock, Wn.				4,445	7,679	13,120	8,860	4,080	5,700			435	3,326			5,900				18,640
Saunborn-Cutting Co.	Astoria, Or.					3,146	2,103				956	1,630	1,860								34,905
Seuffert Bros. Co.	The Dalles, Or.	140	900	12													3,000				13,860
Tallant-Grant Pk. Co.	Astoria, Or.					11,000	9,000				10,000	3,600	2,500								36,100
Union Fishermen's Co-op. Pkg. Co.	Astoria, Or.				7,757	16,785	13,069	1,629	550	539	28	4,852	710			8,569	4,682				50,601
Warren Packing Co.	Warrendale, Or. Cathlamet, Wn.	884	25	2,057	1,241	9,899	3,644				187						110				26,616
Total		2,101	3,698	4,993	23,119	115,844	95,298	27,794	14,862	12,547	27,273	24,116	19,380	879	2,016	33,295	46,134	1,734	1,417		455,500

* Includes 2,057 cases of ovals.

1914—PUGET SOUND CANNED SALMON PACK—1914.

NAME	CANNERY LOCATION	SPRINGS			SOCKEYES			MEDIUM REDS			PINKS			KETAS OR CHUMS			TOTAL				
		1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	½-lb. Flats 8 doz.		Full Cases			
Ainsworth & Dunn	Blaine	13,760		1,400		5,350	12,546	340	460	550	70			1,240							25,716
Alaska Packers Assn.	Semlahmoo	2,690	4,490			17,332	29,952	61													54,525
Apex Fish Co.	Anacortes	1391		3		9,426	12,923	15,501	10	1,230			174	28,503							68,161
Astoria & P. S. Canning Co.	Chuckanut					6,969	11,855	3,655	2,395	1,971			130	15,440	310	13					42,738
Bellingham Canning Co.	Bellingham																				
Blaine Pkg. Co.	Blaine																				
Carlisle Pkg. Co.	Village Point			1,754		2,422	18,627	12,998	1,288	78	598										37,831
Coast Fish Co.	Anacortes	16			6,418	4,577	6,219	13,779	4	164											65,022
Everett Pkg. Co.	Everett				998	3,372	4,884	18,692	1,962	886											53,554
Fidalgo Island Pkg. Co.	Anacortes					7,310	14,353	2,167	1,596	1,790											47,466
Friday Harbor Pkg. Co.	Friday Harbor	59	58	3		1,878	2,988	4,901	785												19,784
Gorman & Co.	Anacortes																				
	Neah Bay	523	4,579	918		8,990	89	11,021	14,555	3,308			285	34	46,330	317	83				91,032
George & Barker Salmon Co.	Point Roberts					3,500	6,450								4,000						14,234
Hodgson & Graham	Richardson																				
Hilder Inlet Canning Co.*	Richardson			19				1,155													3,406
Hillside Canning Co.	Port Townsend	108	74		926	5,298		6,487													19,825
Key City Pkg. Co.	Port Townsend																				
Lummi Bay Pkg. Co.	Lummi Island			312		16,050	8,193	3,743	2,151	44			47		6,911						37,901
Nat'l Indep't Fish. Co.	Floating cannery	2,765			1,900		785	935		490					8,500						15,375
Pacific American Fisheries	Bellingham	30	1,400	300		52,600	16,100	16,000	1,000	4,600					13,000	3,800					108,830
San Juan Fish. & Pkg. Co.	Seattle			125		3,650		400		1,500					10,150						15,225
Seattle Packing Co.	Floating cannery					805															865
Savitary Fish Co., Inc.†	Anacortes	120						180							13,974						13,974
Sinclair Island Canning Co.	Sinclair Island																				
Smiley & Co., J. L.	Blaine			142		8,428	3,092	6,184	500	282					17,430						36,146
San Juan Canning Co.	Friday Harbor																				
Shaw Island Canning Co.	Shaw Island																				
West Coast Pkg. Co.	Blaine						4,230		1,000						17,000						22,250
Total		10,462	10,918	4,664	12,664	169,907	152,659	105,334	26,750	19,779	126	332	434	273,871	627	4,303					792,860

* Plant leased by Winsor & Yorke.

† This plant is a new one and did not begin operating until October, too late for the Sockeye and Medium Red runs.

‡ White king salmon.

1914—SOUTHEAST ALASKA CANNED SALMON PACK—1914.

NAME	CANNERY LOCATION	KINGS			REDS			MEDIUM REDS			PINKS			KETAS, CHUMS			TOTAL
		1-lb. Tails	1-lb. Flats	1/2-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	1/2-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	1/2-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	1/2-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats	1/2-lb. Flats 8 doz.	
Admiralty Trading Co.	Gambier Bay	Did not operate															
Alaska Packers' Assn.	Loring and Wrangell	10,358															
Alaska Pacific Fisheries	Yes Bay Chomley and Chilkoot	11,742															
Alaska Fish Co.	Waterfall	4,132															
Alaska Sanitary Pkg. Co.	Wrangell	160															
Astoria & Puget S'd Pkg. Co.	Excursion Inlet	9,086															
Barnes, F. C. & Co.	Lake Bay	635															
Canoe Pass Pkg. Co.	Canoe Pass	Did not operate															
Deep Sea Salmon Co.	Cape Edwards	73															
Fidalgo Island Pkg. Co.	Ketchikan	8,950															
George Inlet Pkg. Co.	George Inlet	587															
Gorman & Co.	Kasaan, Shakau	6 15															
Harris, P. E. & Co.*	Hawk Inlet	258															
Hidden Inlet Can. Co.	Hidden Inlet	13,583															
Hoonah Pkg. Co.	Hoonah	315															
Hume, Herbert	Nakat Inlet	4,476															
Irving Pkg. Co.	Karheen	4,350															
Kasaan Company	Kasaan	Shown under Gorman & Co.															
Kuin Island Pkg. Co.	Pt. Beaulieu	148															
Lindenberger Packing Co.	Craig	2,148															
Lindenberger Packing Co.	Roe Point	1,575															
Metlakahla Industrial Co.	Metlakahla	1,863															
Myers, Geo. T. & Co.	Chatham	Did not operate															
North Pacific Pkg. & Trdg. Co.	Klawack	12,984															
Northwestern Fisheries Co.	Quadra, Hunter Bay, Santa Ana, Dundas Bay	1,711															
Pacific American Fisheries	Excursion Inlet	109															
Pac. Coast & Norway Pkg. Co.	Petersburg	460															
Pillar Bay Pkg. Co.	Point Ellis	20															
Point Warde Pkg. Co.	Point Warde	3,005															
Pure Food Fish Co.	Ketchikan	1,882															
Shakau Salmon Co.	Shakau	4,429															
Sauborn-Cutting Co.	Kake	Shown under Gorman & Co.															
Sauborn-Cram Co.	Burnett Inlet	1,505															
Starb-Collinson Pkg. Co.	North Arm	340															
Sunny Point Pkg. Co.	Sunny Point	983															
Swift-Arthur-Crosby Co.	Heecta Island	1,913															
Skowl Arm Pkg. Co.	Skowl Arm	18															
St. Elias Pkg. Co.	Aleks	1,144															
Taku Canning & Cold Stg. Co.	Taku Harbor	Did not operate															
Tee Harbor Pkg. Co.	Tee Harbor	166															
Thlinket Pkg. Co.	Funter Bay	3,025															
Wards Cove Pkg. Co.	Ward's Cove	9,847															
Wiese Packing Co.	Rose Inlet	31,164															
Yakutat & Southern Rwy.	Yakutat	928															
Total		9,973	815	1,299	221,703	36,402	36,737	107,300	283	4,580	761,136	9,265	2,103	591,494	5,568	373	1,789,031

* Formerly Hawk Fish Co.

1914—CENTRAL ALASKA CANNED SALMON PACK—1914.

NAME	CANNERY LOCATION	KINGS		REDS		MEDIUM REDS	PINKS	KETAS, CHUMS	TOTAL
		1 lb. Tails	1 lb. Flats	1 lb. Tails	1-lb. Flats	1 lb. Tails	1 lb. Tails	1 lb. Tails	
Alaska Packers Association	Kasilof, Larsen's Bay, Chignik and Alatak	3,223							
Columbia River Packers Association	Chignik	63							
Fidalgo Island Packing Company	Point Graham	210							
Kadiak Fisheries Company	Kodiak	43							
Libby, McNeill & Libby	Kenai	1,315							
Northwestern Fisheries Company	Oreca, Kenai, Uyak, Chignik	2,004							
Pacific American Fisheries	King Cove	80							
Seldovia Salmon Company	Seldovia	976							
Total		10,914	218	382,770	12,340	36,739	195,830	17,693	656,504

1914—WESTERN ALASKA, OR BRISTOL BAY, CANNED SALMON PACK—1914.

NAME	CANNERY LOCATION	KINGS			REDS			MEDIUM REDS	PINKS	KETAS OR CHUMS	TOTAL
		1-lb. Tails	1-lb. Flats	1/2-lb. Flats 8 doz.	1-lb. Tails	1-lb. Flats 8 doz.	1/2-lb. Flats 8 doz.	1 lb. Tails	1 lb. Tails	1 lb. Tails	
Alaska Packers Association	Nushagak(2), Kogglung(2), Naknek(3) and Ugagak	5,629									
Alaska-Portland Packers Assn.	Nushagak	3,746									
Alaska Salmon Co.	Wood River	1,644									
Bristol Bay Packing Co.	Kvichak	45,000									
Columbia River Packers Assn.	Nushagak	3,597									
Libby, McNeill & Libby*	Nushagak and Kogglung	2,107									
Midnight Sun Pkg. Co.	Kotzebue Sound	210									
Naknek Packing Co.	Naknek	210									
North Alaska Salmon Co.	Kogglung, Lockonock, Nushagak and Ugagak	1,721									
Northwestern Fisheries Co.	Nushagak	4,380									
Pacific American Fisheries	Port Moller	700									
Red Salmon Canning Co.	Ugashik	187									
Total		21,814	1,000	2,132	1,490,733	9,010	11,879	8,890	29,489	47,350	1,622,897

* Formerly Alaska Fishermen's Pkg. Co.

1914—RECAPITULATION, ALASKA CANNED SALMON PACK—1914.

DISTRICTS	KINGS			REDS			MEDIUM REDS			PINKS			KETAS OR CHUMS			TOTAL Full cases	
	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.		
Western Alaska	21,814	1,000	2,132	1,490,733	9,010	11,879	8,890			29,489			47,350				1,622,297
Central Alaska	10,914	218		382,770	12,340		36,739			195,830			17,693				658,504
Southeast Alaska	9,973	815	1,299	221,703	36,402	36,737	107,300	283	4,580	761,136	9,265	2,103	591,494	5,568	373		1,789,031
Total	42,701	2,033	3,431	2,095,206	57,752	48,616	152,929	283	4,580	986,455	9,265	2,103	656,537	5,568	373		4,067,832

1914—SIBERIAN CANNED SALMON PACK—1914

NAME	CANNERY LOCATION	REDS		SILVERS	PINKS*	HUMP-BACKS	TOTAL Full Cases
		1-lb. Flats	½-lb. Flats S doz.	1-lb. Flats	1-lb. Flats	1-lb. Flats	
Denbigh, A. G.	Kamchatka River	41,000	2,000	12,000			73,000
Denbigh, A. G.	Compcowa					6,000	6,000
Grooshetsky, S., & Co.	Bolsheretsk	15,000				3,000	22,500
Ichigumi & Co.	Kamchatka River	7,000		3,000			10,000
Tsutsumi & Co.	Ozernaya	12,000					12,000
Hand-pack Canneries	East Kamchatka	3,000		3,000			6,000
Hand-pack Canneries	West Kamchatka	5,000		2,000			7,000
Total		83,000	2,000	22,500	27,000	2,000	136,500

* Are Dog salmon under "Pink" label.

1914—NORTHWESTERN FISHERIES CO. CANNED SALMON PACK—1914.

DISTRICT	KINGS	REDS		MEDIUM REDS	PINKS		KETAS. CHUMS	TOTAL Full Cases
	1-lb. Talls	1-lb. Talls	1-lb. Flats	1-lb. Talls	1-lb. Talls	1-lb. Flats	1-lb. Talls	
Western Alaska	4,380	44,569		393			3,330	52,672
Central Alaska	2,004	131,764		11,227	45,183		1,217	191,395
Southeast Alaska	109	10,505	4,718	5,230	70,939	1,928	50,174	143,603
Total	6,493	186,838	4,718	16,850	116,122	1,928	54,721	387,670

1914—GORMAN & CO. CANNED SALMON PACK—1914.

DISTRICT	KINGS, SPRINGS			REDS, SOCKEYES			MEDIUM REDS, COHOS			PINKS			KETAS, CHUMS			TOTAL Full cases
	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	
Alaska		15	6	733	2,629	1,863	735	83	24	35,142	7,220	533	60,409	5,568	373	115,333
Puget Sound	523	4,579	918		8,990	89	11,021	14,555	3,308		285	34	46,330	317	83	91,032
Totals	523	4,594	924	733	11,619	1,952	11,756	14,638	3,332	35,142	7,505	567	106,739	5,885	456	206,365

1914—ALASKA PACKERS ASSOCIATION CANNED SALMON PACK—1914.

DISTRICT	SPRINGS, KINGS			REDS SOCKEYES			MEDIUM REDS	PINKS	KETAS, CHUMS	TOTAL Full Cases		
	1-lb. Talls	1-lb. Flats	1-lb. Talls	1-lb. Flats	½-lb. Flats S doz.	1-lb. Talls	1-lb. Talls	1-lb. Talls				
Bristol Bay							7,193	23,167	20,616	816,892		
Central Alaska							12,966	90,844	2,414	223,416		
Southeast Alaska							1,214	92,772	42,803	147,147		
Total, Alaska							21,373	206,783	65,833	1,187,455		
Puget Sound	2,690	4,490				17,332	29,952	61		54,525		
Grand Total	11,542	4,490				884,614	17,332	29,952	21,434	206,783	65,833	1,241,980

1914—NORTH ALASKA SALMON CO. CANNED SALMON PACK—1914.

DISTRICT	KINGS	REDS			MEDIUM REDS	PINKS	KETAS OR CHUMS	TOTAL Full Cases	
	1-lb. Talls	1-lb. Talls	2-lb. Talls, 2 doz.	1-lb. Flats	½-lb. Flats, S doz.	1-lb. Talls	1-lb. Talls		
Nushagak	1,702	35,969		3,373		128	979	45,120	
Kogglung		41,259		351			1,096	45,395	
Lockonok		74,881					1,538	76,419	
Ugagak	19	22,895						23,157	
Total	1,721	174,944		351		2,689	3,613	3,272	190,091

CANNED SALMON PACK BY WATERS, 1864-1914.

YEAR	Puget Sound	Grays Harbor	Willapa Harbor	Columbia River	Coastal Streams of Oregon	Smith River, Cal.	Klamath River, Cal.	Eel River, Cal.	Sacram'nto River	Alaska	British Columbia	Total
	Cases	Cases	Cases	Cases	Cases	Cases	Cases	Cases	Cases	Cases	Cases	Cases
1864									2,000			2,000
1865									2,000			2,000
1866				4,000								4,000
1867				18,000								18,000
1868				28,000								28,000
1869				100,000								100,000
1870				150,000								150,000
1871				200,000								200,000
1872				250,000								250,000
1873				250,000								250,000
1874				350,000					2,500			352,500
1875				375,000					3,000			378,000
1876				450,000					10,000			460,000
1877	5,500			380,000	7,804			8,500	34,017			435,621
1878	2,238	5,420		460,000	16,654	4,277		10,500	34,017	8,150		583,255
1879	1,300			480,000	8,772				13,855	12,530		61,692
1880	5,100			530,000	7,372	7,500		6,250	62,000	6,539		68,619
1881	8,500			550,000	12,320				181,200	8,977		169,576
1882	7,900			541,200	19,186				200,000	21,745		249,461
1883	1,500			629,400	16,156				123,000	48,337		167,438
1884	5,500			620,000	12,276				81,450	64,886		123,706
1885	12,000			558,800	9,310				90,000	82,415		108,517
1886	17,000			448,500	49,147				39,300	142,065		152,964
1887	22,000			376,000	73,996				36,500	206,677		264,083
1888	21,975	37,000	22,500	372,477	92,863	2,347	4,400		68,075	412,115		184,000
1889	11,674			309,885	98,800				57,500	719,196		417,211
1890	8,000			435,774	47,000				25,065	682,591		111,257
1891	20,320	500	8,000	398,953	24,500				19,353	801,400	314,511	1,378,746
1892	14,500	16,500	14,500	487,338	83,600				2,281	474,717		248,721
1893	89,774	22,000	16,195	415,876	52,778	1,500	1,600		23,536	643,654	610,202	1,576,915
1894	95,400	21,400	15,100	490,100	84,815	1,500	1,700		28,463	686,410	492,232	1,887,150
1895	179,968	11,449	22,600	634,696	77,878	2,250	1,600		25,185	626,530	587,692	2,169,548
1896	195,664	21,274	21,941	481,697	87,360				13,387	966,707	617,782	2,408,812
1897	494,026	13,300	29,600	532,721	60,158				38,543	909,078	1,027,183	3,124,609
1898	400,200	12,100	21,420	487,944	75,679				29,731	965,097	492,531	2,184,732
1899	919,611	24,240	21,314	332,774	82,041		1,600		32,580	1,078,746	765,319	3,257,825
1900	469,450	30,800	26,300	358,722	12,237				39,304	1,348,439	606,540	3,091,542
1901	1,380,590	41,500	34,000	390,183	58,618				17,500	2,016,804	1,247,212	5,186,497
1902	581,659	31,500	39,492	317,143	44,230			2,500	14,043	2,436,824	627,161	4,194,558
1903	478,488		5,800	339,577	54,861				8,200	2,246,219	873,847	3,607,073
1904	291,488	27,559	26,400	395,104	98,874		3,400		14,407	1,954,756	465,894	3,276,882
1905	1,018,641	22,050	14,950	397,273	89,053				2,780	1,894,516	1,167,822	4,607,957
1906	430,602	22,000	14,440	394,898	197,332					2,219,044	629,460	3,817,776
1907	698,080	14,000	13,382	324,171	79,712					2,169,873	547,459	3,846,977
1908	448,765	14,000	20,457	253,341	52,478					2,606,973	566,303	3,992,317
1909	1,632,949	19,787	12,024	274,087	58,169		5,633			2,395,477	993,060	5,991,186
1910	567,883	51,130	14,508	391,445	103,617		8,016	6,000		2,413,054	760,830	4,316,433
1911	1,577,929	61,671	25,850	543,331	153,828		7,604		4,142	2,820,066	948,965	6,122,486
1912	416,125	54,507	24,887	285,666	77,765	2,200	20,000	11,000		4,060,129	996,576	5,948,855
1913	2,583,463	54,922	8,422	266,479	42,441		6,376			3,746,493	1,333,901	8,063,447
1914	792,860	54,109	15,792	455,500	116,335	3,000	11,000			17,315	4,067,832	1,111,039
Total	15,897,857	745,527	502,056	18,511,175	2,220,314	24,574	75,429	42,250	1,375,262	48,264,191	20,106,237	107,694,971

* Reduced to a common basis of forty-eight 1-pound cans to the case.

PACK OF CANNED SALMON IN ALASKA FROM 1898 TO 1914 BY SPECIES.

YEAR	Coho. or Silver		Dog. or Chum		Humpback. or Pink		King. or Spring		Red. or Sockeye		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value
1898	54,711		5,184		109,399		12,862		782,941		965,007	
1899	39,402		1,931		149,159		23,400		864,254		1,078,146	
1900	50,984		30,012		232,022		37,715		1,197,406		1,548,139	
1901	65,509		47,464		541,427		13,069		1,319,335		2,018,804	
1902	82,723		159,849		540,602		59,104		1,685,546		2,536,824	
1903	120,506		35,052		355,799		17,609		1,687,244		2,246,210	
1904	85,741		21,178		299,333		11,956		1,505,548		1,953,756	
1905	67,394	\$215,875	41,972	\$113,056	168,597	\$ 498,194	12,125	\$141,999	1,574,428	\$5,325,547	1,894,516	\$ 6,304,671
1906	109,141	332,109	254,812	730,235	348,297	1,046,951	30,834	116,222	1,475,961	5,620,875	2,219,014	7,896,392
1907	85,190	337,384	184,173	547,757	561,973	1,799,280	13,424	181,718	1,295,113	5,915,227	2,169,873	8,781,366
1908	68,827	274,089	218,513	554,197	644,133	1,733,379	23,730	99,867	1,651,770	7,524,251	2,606,973	10,185,783
1909	56,556	231,029	120,712	274,110	464,873	1,114,839	48,034	207,624	1,705,302	7,610,550	2,395,477	9,438,152
1910	114,026	559,666	254,218	773,409	554,322	1,764,055	40,221	214,802	1,450,267	7,774,390	2,413,054	11,086,322
1911	129,704	752,282	303,823	1,215,692	1,021,356	4,493,066	45,378	363,021	1,320,705	8,552,512	2,820,966	16,198,833
1912	170,384	791,023	638,528	1,600,444	1,303,365	3,410,928	52,594	310,847	1,904,258	10,776,987	4,060,129	16,890,229
1913	77,377	271,078	267,654	623,424	1,402,916	3,687,446	34,167	140,914	1,964,379	9,136,616	3,746,493	13,859,478
1914	157,792	735,219	662,478	2,260,614	997,823	3,600,075	48,165	281,924	2,201,574	12,842,110	4,067,832	19,719,942

There is not a packer of fish, large or small, on the entire Pacific Coast, from Mexico to the Arctic Circle, who does not receive the Pacific Fisherman. The circulation of this journal is absolutely complete among everyone connected with the commercial fisheries on this Coast.

WAKEFIELD

LEE H. WAKEFIELD PRESIDENT

CANNED SAL

ALASKA

ALL GRADES

OWNERS AND DISTRIBUTORS

HIGH CLASS

PINK

ALEX SOO-PERE-YOR

CHINOOK

TOWER

SOCKEYE

APEX WAKEFIELDS BEST

SALES OFFICES:

AND COMPANY

BURLEIGH O NEAL SALES MANAGER

MON BROKERS

PUGET SOUND

ALL SIZES

OF THE FOLLOWING
SALMON LABELS

CHUM

AJAX

AUNT JEMIMA

ALASKA RED

HUMMER

COHOE

TIDINGS

REX

L.C.SMITH BLDG. SEATTLE.

WAKEFIELD AND COMPANY

LEE H. WAKEFIELD PRESIDENT

BURLEIGH O'NEAL SALES MANAGER

CANNED SALMON BROKERS

ALASKA

PUGET SOUND

ALL GRADES

ALL SIZES

OWNERS AND DISTRIBUTORS

OF THE FOLLOWING

HIGH CLASS

SALMON LABELS

PINK

CHUM

ALEX SOO-PERE-YOR

AJAX AUNT JEMIMA

CHINOOK

ALASKA RED

TOWER

HUMMER

SOCKEYE

COHOE

APEX WAKEFIELDS BEST

TIDINGS

REX

SALES OFFICES:

L.C.SMITH BLDG. SEATTLE.

PACK OF CANNED SALMON ON THE COLUMBIA RIVER FROM THE INCEPTION OF THE INDUSTRY TO 1914

YEAR	Number of Canneries	Chinook		Blueback		Silversides		Dog or Chum		Steelhead Trout		Total	
		Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value
1866												4,000	\$ 64,000
1867												18,000	288,000
1868												28,000	392,000
1869												100,000	1,350,000
1870												150,000	1,800,000
1871												200,000	2,100,000
1872												250,000	2,325,000
1873												250,000	2,250,000
1874												350,000	2,625,000
1875												375,000	2,250,000
1876												450,000	2,475,000
1877												350,000	2,052,000
1878												400,000	2,300,000
1879	30											450,000	2,640,000
1880	30											530,000	2,650,000
1881	29											530,000	2,475,000
1882												641,300	2,600,000
1883												629,400	3,147,000
1884												620,000	2,915,000
1885												533,800	2,500,000
1886												448,500	2,135,000
1887												356,000	2,124,000
1888	28											372,477	2,233,862
1889	21	266,697	\$1,600,182	17,797	\$101,051					25,391	\$108,587	309,885	1,809,829
1890	21	335,604	1,946,087	57,345	290,069					42,825	171,300	435,774	2,407,456
1891	22	353,907	2,038,566	15,482	284,242					29,564	118,156	398,953	2,440,964
1892	24	344,267	1,996,388	66,547	372,909	4,176	\$ 20,880			72,348	288,892	487,338	2,679,069
1893	24	288,773	1,559,374	30,459	152,295	29,107	116,428	2,311	\$ 6,933	65,226	260,904	415,876	2,095,934
1894	24	351,106	1,895,976	43,814	224,430	42,758	171,032			52,422	209,688	490,100	2,601,126
1895	24	444,909	2,428,658	18,015	86,523	99,601	329,683	22,493	62,591	49,678	203,542	634,696	3,110,997
1896	24	370,943	1,840,511	16,983	81,518	44,108	141,145			49,663	198,652	481,697	2,261,826
1897	24	432,753	1,804,221	12,972	51,888	60,850	197,762			46,146	165,440	552,721	2,219,311
1898	23	329,566	1,490,394	66,670	300,015	65,431	222,465			26,277	60,352	457,944	2,073,226
1899	17	255,824	1,458,175	23,969	134,723	29,608	112,055	11,379	33,836	11,994	39,186	332,774	1,777,975
1900	16	262,392	1,821,258	13,162	92,184	44,925	202,163	17,696	63,706	20,597	102,985	358,772	2,282,296
1901												390,183	1,942,660
1902	14	270,580	1,423,743	17,037	86,465	10,532	44,732	10,401	41,604	8,593	42,965	317,143	1,614,509
1903	16	301,762	1,610,614	8,383	42,867	12,181	49,869	10,000	37,500	7,251	36,255	339,577	1,777,105
1904	20	320,378	1,944,690	12,911	78,048	31,254	118,357	20,693	52,691	9,868	48,892	395,104	2,242,678
1905	19	327,106	1,962,636	7,768	46,608	26,826	114,011	25,751	65,206	9,822	49,110	397,273	2,237,571
1906	19	311,334	1,868,007	7,816	54,712	41,446	124,338	27,802	69,505	6,500	32,500	394,898	2,149,062
1907	19	258,433		5,504		31,757		22,556		5,921		324,171	1,763,490
1908	14	210,096		8,581		31,432		16,884		10,726		253,341	1,380,708
1909	15	162,131	1,203,546	27,908	214,561	42,178	185,070	24,542	67,115	17,283	99,796	1274,087	1,760,088
1910	15	244,285	1,882,137	6,234	34,287	68,922	363,688	66,538	232,883	5,436	31,203	391,415	2,544,198
1911	15	405,862	2,204,185	5,988	47,904	79,416	549,478	53,471	203,198	8,594	47,399	543,331	3,052,164
1912	15	220,317	1,988,528	8,210	85,384	31,842	177,248	18,699	48,590	6,958	22,108	285,666	2,319,856
1913	15	192,116	1,664,670	11,152	93,677	40,969	175,412	13,303	29,486	8,939	49,142	266,479	2,012,387
1914	17	289,464	2,573,502	35,311	376,924	69,769	380,866	49,285	305,541	10,792	59,356	454,621	3,695,989
Total												18,510,296	105,874,327

* Of these, 2,846 cases, valued at \$23,203, were packed with Sockeyes brought from Puget Sound.

+ 55 Cases of Humpbacks, valued at \$132, were also packed with Humpbacks brought from Puget Sound.

PACK OF CANNED SALMON ON PUGET SOUND FROM 1887 TO 1914 BY SPECIES.

YEAR	Number of Canneries	SPRING		SOCKEYE		MEDIUM RED		CHUM		PINK		TOTAL	
		Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value	Cases	Value
1887													22,000
1888	4												21,975
1889	2	240	\$ 1,200			7,480	37,400	1,145	\$ 3,435	2,809	\$ 7,584	11,674	49,619
1890	1	1,000	6,000			3,000	15,000	4,000	12,000			8,000	32,000
1891	2	382	2,101	5,538	\$ 24,921	5,869	19,368	3,093	10,825	5,647	15,246	20,529	72,461
1892	2	86	473	2,954	11,816	7,206	24,500	16,180	56,630			26,426	93,419
1893	3	1,200	6,480	47,852	103,371	11,812	59,060	11,380	31,295	17,530	47,331	89,331	247,537
1894	3			41,781	188,014	22,418	89,672	22,152	60,918	9,049	24,432	95,400	363,036
1895	7	1,542	7,325	65,143	273,108	80,865	154,218	38,787	94,741	23,633	62,556	179,968	591,948
1896	11	13,495	67,475	72,979	350,299	82,640	264,448	26,550	73,013			195,664	755,236
1897	12	9,500	39,045	312,048	1,248,192	91,900	282,133	23,310	64,103	57,268	171,804	494,026	1,805,277
1898	18	11,200	50,624	252,000	1,058,400	98,600	335,240	38,400	105,600			400,200	1,549,864
1899	19	24,364	103,180	499,646	2,368,334	111,387	418,176	31,481	86,427	252,733	734,241	919,611	3,710,358
1900	19	22,350	134,100	229,800	1,149,000	128,200	512,800	89,100	245,025			469,450	1,940,925
1901													1,380,590
1902	21	30,049	150,245	372,301	2,047,655	85,817	429,085	93,492	467,460			581,659	3,094,445
1903	22	14,500	72,500	167,211	1,003,260	103,450	413,800	12,001	30,002	181,326	407,984	478,488	1,927,546
1904	13	14,441	69,352	109,264	653,871	118,127	447,851	49,656	124,254			291,488	1,295,328
1905	24	1,804	9,922	252,453	4,952,715	79,335	337,174	41,057	102,643	70,992	212,976	1,018,641	5,615,433
1906	16	8,139	48,834	178,748	1,251,236	94,497	472,485	149,218	708,781			430,602	2,481,336
1907	14	1,814	16,327	93,122	698,417	119,477	476,288	50,247	150,847	433,423	1,300,269	698,080	2,642,146
1908	22	95,210	666,470	170,951	1,196,657	128,922	644,922	47,607	142,821	6,075	18,225	448,765	2,669,995
1909	11	13,019	72,604	1,097,904	6,183,300	143,133	630,446	53,688	128,916	370,993	902,342	1,632,949	7,917,608
1910	24	10,064	60,324	248,014	1,673,095	162,756	895,153	146,942	514,297	108	388	567,883	3,143,256
1911	15	21,823	172,582	127,761	1,168,147	258,121	591,185	104,321	392,122	1,046,992	4,302,314	1,557,029	7,727,524
1912	20	20,252	101,706	184,680	1,660,173	149,727	761,200	60,760	154,193	700	2,185	416,125	2,679,457
1913	22	1,234	5,247	1,673,099	10,871,177	61,017	237,372	56,225	124,970	791,886	2,092,401	2,583,463	13,329,168
1914	31	26,044	167,322	335,230	3,208,696	151,893	759,689	278,801	955,920	892	4,212	792,860	5,095,839

PACK OF CANNED SALMON IN ALASKA, BY DISTRICTS, FROM INCEPTION OF THE INDUSTRY.

YEAR	SOUTHEAST ALASKA		CENTRAL ALASKA		WESTERN ALASKA		TOTAL	
	Canneries	Pack Cases	Canneries	Pack Cases	Canneries	Pack Cases	Canneries	Pack Cases
1878	2	8,159					2	8,159
1879	2	12,530					2	12,530
1880	1	6,539					1	6,539
1881	1	8,977					1	8,977
1882	1	11,501					3	21,745
1883	4	20,040	2	28,297			6	48,337
1884	4	22,189	2	42,297	1	*400	7	64,886
1885	3	16,728	2	52,687	1	14,000	6	83,415
1886	4	18,660	2	74,583	3	48,822	9	142,065
1887	5	31,462	2	102,515	3	72,700	10	206,677
1888	6	81,128	6	241,101	4	89,886	16	412,115
1889	12	141,760	21	461,451	4	115,955	37	719,196
1890	12	142,901	19	421,300	4	118,390	35	682,591
1891	11	156,615	14	511,367	5	133,418	30	801,400
1892	7	115,722	6	295,496	2	63,490	15	474,717
1893	8	136,053	11	399,815	3	107,786	22	643,654
1894	7	142,544	10	435,052	4	108,844	21	686,440
1895	7	148,476	10	327,919	6	150,145	23	626,540
1896	9	262,381	12	483,990	8	218,336	29	964,707
1897	9	271,867	13	382,899	7	254,312	29	909,078
1898	9	251,385	14	395,009	7	318,703	30	965,097
1899	9	310,219	14	356,095	9	411,832	32	1,078,146
1900	16	456,639	14	492,223	12	599,277	42	1,548,139
1901	21	735,449	13	562,142	21	719,213	55	2,016,804
1902	26	906,676	12	583,690	26	1,046,458	64	2,536,824
1903	21	642,305	12	417,175	27	1,186,730	60	2,246,210
1904	12	569,003	11	499,485	32	885,268	55	1,953,756
1905	13	433,607	9	371,755	25	1,089,514	47	1,894,516
1906	20	767,285	8	473,024	19	978,735	47	2,219,044
1907	22	887,503	8	522,836	18	759,534	48	2,169,873
1908	23	1,011,648	8	423,721	19	1,169,604	50	2,606,973
1909	19	832,870	8	391,054	18	1,151,553	45	2,395,477
1910	23	1,066,399	10	432,517	19	914,138	52	2,413,054
1911	32	1,580,868	11	499,743	21	733,206	64	2,823,817
1912	51	2,033,648	14	623,062	22	1,395,931	87	4,054,641
1913	42	1,793,831	14	447,267	23	1,505,375	79	3,746,493
1914	45	1,789,031	14	656,504	23	1,622,297	82	4,067,832
Total	.....	18,004,132	.....	12,424,315	.....	18,001,387	.....	48,262,454

* Experimental pack.

THE SIBERIAN PACK OF CANNED SALMON SINCE THE INCEPTION OF THE INDUSTRY.

YEAR	Reds	Silvers	"Pinks" or Dogs.*	Humpbacks	TOTAL
	Cases	Cases	Cases	Cases	Full cases
1910	5,500	2,500	2,000		10,000
1911	15,000	6,000	4,000		25,000
1912	43,500	18,000	16,000		77,500
1913	102,900	7,000	21,000	2,500	133,400
1914	85,000	22,500	27,000	2,000	136,500
Total	251,900	56,000	70,000	4,500	382,400

* Dog salmon are marketed under a "Pink" label.

CANNED OYSTERS.

According to the Bureau of Chemistry, Department of Agriculture, the following weights of drained meats taken from the can will meet with approval:

—Size of Can—		Weight of drained oysters "cut out"
Diameter, inches	Height, inches	
2 1/8	2 3/4	3 ounces
2 1/8	3 3/8	4 ounces
2 1/8	4 No. 1	5 ounces
3 3/8	3 1/8	8 ounces
3 3/8	4 3/8 No. 2	10 ounces

STANDARDIZATION OF CAN SIZES.

Bulletin No. 10, of the National Cannermen's Association, dated February 13, 1913, in part, reads as follows: "At a recent meeting in Chicago, Messrs. George W. Cobb, Thomas G. Cranwell and W. R. Olney were appointed a committee on the above subject. After a careful study of the subject those gentlemen made a report stating that they had agreed upon the following sizes, that is to say:

Hole and Cap Cans—	Diam. Ins.	Height Ins.
No. 1 size	2 1/8	4
No. 2	3 3/8	4 3/8
No. 2 1/2	4	4 3/4
No. 3, 4 1/8 inches	4 3/8	4 7/8
No. 3, 5 inches	4 3/4	5
No. 3, 5 1/2 inches	4 3/4	5 1/2
No. 10	6 3/8	6 3/4
Sanitary Cans—		
No. 1 size	2 1/8	4
No. 2	3 3/8	4 3/8
No. 2 1/2	4	4 3/4
No. 3, 4 1/8 inches	4 3/8	4 7/8
No. 3, 5 inches	4 3/4	5
No. 3, 5 1/2 inches	4 3/4	5 1/2
No. 10	6 3/8	7

TARIFF SCHEDULES ON FISH.

The following table shows the fish schedules of the new tariff law enacted by Congress and for purposes of comparison the same schedules of the old law are reproduced. As will be noticed quite material reductions, and in some instances a complete elimination of the duty, has been provided for in the new law.

	Old rate	New rate
Fresh or salted salmon, halibut or mackerel, lb.	1c	free
Canned fish (except shellfish), per cent.	30	15
Herring, pickled, salted, smoked or kippered, lb.	1/2 c	free
Herring, fresh, lb.	1/4 c	free
Fish, skinned or boned, lb.	1 1/4 c	3/4 c
All kinds shellfish; also turtles.	free	free
Fish packed in oil (except shellfish) per cent.	29	25
Fish oils, seal, herring, etc., gal.	8c	3c
Fish fertilizers	free	free
Sperm whale oil, gal.	8c	8c
Other whale oils, gal.	8c	5c
Cod oil, gal.	8c	free
Cod liver oil, gal.	15c	free
Fresh water fish, lb.	1/4 c	free
Spermaceti, whale and other fish oils of American fisheries and all other fish and products of such fisheries.	...	free
Whalebone, unmanufactured	free	free
Preserved fish, lb.	3/4 c	free
Fish skins	free	free
Caviar and roe, per cent.	30	30
Fish eggs, (except roe for food purposes)	free	free
Fish paste or sauce, per cent.	40	25
All other fish not specifically provided for, lb.	3/4 c	free
Salt, per 100 lbs.	7c	free
Tin plate	\$1.20	100 lbs. 15 7/8
Fishing hooks, per cent.	45	30
Fishing tackle and parts, per cent.	45	30
Seines and gillnets, per cent.	20	25

1914.—SALMON FLEET—1914.

Vessel	Rig	Net Tonnage	Company	From	To	Sailed	Returned
Abner Coburn	Ship	1878	Libby, McNeill & Libby	Seattle	Kenai	Mch. 18	Sept. 28
A. B. Carpenter	Steamer	82	Northwestern Fisheries Co.	Seattle	Kenai	April 2	Sept. 22
Afognak	Steamer	67	Alaska Packers' Assn.	San Francisco	Wrangell	April 2	In Alaska
Akutan	Steamer	39	Alaska-Portland Pkrs. Assn.	Portland	Nushagak	April 24	Aug. 30
Albert	Bark	624	Olson Bros.	San Francisco	Bristol Bay	April 22	Sept. 20
Alitak	Steamer	73	Alaska Packers' Assn.	San Francisco	Chignik	April 2	Sept. 24
A. J. Fuller	Ship	1673	N. W. Fisheries Co.	Seattle	Uyak	April 2	Oct. 5
Benj. F. Packard	Ship	2013	Alaska Packers' Assn.	San Francisco	Chignik	April 3	Sept. 9
Berlin	Ship	1416	Alaska Portland Pkrs. Assn.	Portland	Nushagak	April 18	Sept. 1
Bohemia	Ship	1528	Alaska Packers' Assn.	San Francisco	Naknek	Mch. 24	Sept. 15
Bonita	Gas str.	45	N. Alaska Salmon Co.	San Francisco	Kvichak	April	Sept. 20
C. A. Thayer	Schooner	390	P. M. Nelson	San Francisco	Kvichak	April 23	Sept. 6
Chas. E. Moody	Ship	1734	N. W. Fisheries Co.	Seattle	Kenai	April 1	Sept. 26
Centennial	Barkentine	1138	Alaska Packers' Assn.	San Francisco	Kogglung	April 9	Sept. 20
Chilkat	Steamer	98	Alaska Packers' Assn.	San Francisco	Wrangell	April 17	Oct. 11
Dashing Wave	Barge	941	Taku C. & C. Co.	Seattle	Taku	April 18	Oct. 25
Elwell	Barge	1356	George T. Myers & Co.	Seattle	Chatham	April 18	Sept. 14
Equator	Tug	42	N. W. Fisheries Co.	Seattle	Chignik	Laid up	
Expansion	Gas str.	113	N. Alaska Salmon Co.	San Francisco	Bristol Bay	April 22	Sept. 21
Geo. Curtiss	Bark	1680	N. Alaska Salmon Co.	San Francisco	Bristol Bay	April 15	Sept. 23
Gertie Story	Steamer	36	Alaska Packers' Assn.	San Francisco	Alltak	April 9	In Alaska
Emily F. Whitney	Ship	2107	Alaska Salmon Co.	San Francisco	Nushagak	April 14	Sept. 4
Guy C. Goss	Bark	1430	N. W. Fisheries Co.	Seattle	Nushagak	April 15	Aug. 2
Geo. F. Haller	Steamer	107	N. Alaska Salmon Co.	San Francisco	Kvichak	April 22	Sept. 20
Glory of the Seas	Barge	1939	Glacier Fisheries Co.	Seattle	S. E. Alaska	Laid up	
Harvester	Bark	716	N. W. Fisheries Co.	Seattle	Dundas	Mch. 30	Oct. 3
Henry Wilson	Schooner	430	N. Alaska Salmon Co.	San Francisco	Bristol Bay	April 21	Sept. 9
Indiana	Ship	1413	Alaska Packers' Assn.	Seattle	Nushagak	Mch. 18	Sept. 4
J. D. Peters	Barge	1030	N. W. Fisheries Co.	Seattle	Hunters Bay	April 20	Nov. 5
Kadlak	Steamer	58	Alaska Packers' Assn.	San Francisco	Bristol Bay	April 11	Sept. 13
Kanak	Steamer	8	Alaska Packers' Assn.	San Francisco	Wrangell	April 11	Oct. 11
Karluk	Steamer	8	Alaska Packers' Assn.	San Francisco	Cook's Inlet	April 1	Sept. 13
Kvichak	Steamer	610	Alaska Packers' Assn.	San Francisco	Nushagak	April 30	Sept. 11
Levi G. Burgess	Bark	1475	Alaska Portland Pkrs. Assn.	Portland	Nushagak	April 16	Sept. 3
Lewellyn J. Morse	Ship	1271	Alaska Packers' Assn.	San Francisco	Nushagak	April 11	Sept. 13
Lehua	Steamer	129	Red Salmon C. Co.	San Francisco	Ugashik	April 18	Sept. 6
Lillian	Steamer	383	Alaska Packers' Assn.	San Francisco	Bristol Bay	April 10	Sept. 13
Lizzie Vance	Schooner	1312	Alaska Salmon Co.	San Francisco	Nushagak	April 10	Sept. 5
McLaurin	Ship	40	L. A. Pedersen	San Francisco	Kvichak	April 16	Sept. 20
North King	Steamer	40	Alaska Portland Pkrs. Assn.	Portland	Nushagak	April 11	In Alaska
North Star	Steamer	82	Libby, McNeill & Libby	Seattle	Nushagak	April 11	Sept. 1
Nushagak	Steamer	478	Alaska Packers' Assn.	San Francisco	Nushagak	April 30	Sept. 15
Oriental	Bark	1550	N. Alaska Salmon Co.	San Francisco	Nushagak	April 19	Sept. 12
Olympic	Bark	1553	N. Alaska Salmon Co.	San Francisco	Kogglung	April 11	Oct. 3
Pactolus	Bark	1564	Naknek Packing Co.	San Francisco	Naknek	April 18	Sept. 10
Philip F. Kelley	Steamer	93	Geo. T. Myers & Co.	Seattle	Chatham	April 18	Sept. 10
Premier	Schooner	292	Alaska Packers' Assn.	San Francisco	Nushagak	April 17	Sept. 3
Prosper	Schooner	229	Alaska Packers' Assn.	San Francisco	Kvichak	April 25	Sept. 5
Paramita	Bark	1414	L. A. Pedersen	San Francisco	Kvichak	April 17	Weekend
Reuce	Ship	1601	Col. River Packers' Assn.	Astoria	Chignik	April 1	Sept. 5
Roy Somers	Schooner	298	North Alaska Salmon Co.	San Francisco	Bristol Bay	April 22	Sept. 7
Ronak	Steamer	29	Alaska Packers' Assn.	San Francisco	Naknek	April 22	In Alaska
Santa Clara	Ship	1453	Alaska Packers' Assn.	San Francisco	Kvichak	Mch. 28	Sept. 20
Shellkof	Steamer	101	N. W. Fisheries Co.	Seattle	Uyak	Mch. 30	Oct. 3
Sintram	Ship	1495	Naknek Packing Co.	San Francisco	Naknek	April 10	Sept. 8
Standard	Ship	1461	N. Alaska Salmon Co.	San Francisco	Bristol Bay	April 15	Sept. 8
Star of Alaska	Ship	1554	Alaska Packers' Assn.	San Francisco	Chignik	Mch. 31	Sept. 11
Star of Chile	Bark	874	Alaska Packers' Assn.	San Francisco	Egegak	April 14	Sept. 6
Star of England	Bark	1705	Alaska Packers' Assn.	San Francisco	Kvichak	April 14	Sept. 19
Star of Finland	Bark	1430	Alaska Packers' Assn.	San Francisco	Alltak	April 7	Sept. 22
Star of France	Ship	1514	Alaska Packers' Assn.	San Francisco	Naknek	April 11	Sept. 6
Star of Greenland	Bark	1974	Alaska Packers' Assn.	San Francisco	Wrangell	April 17	Oct. 28
Star of Holland	Bark	1987	Alaska Packers' Assn.	San Francisco	Karluk	Mch. 18	Oct. 4
Star of Iceland	Bark	1856	Alaska Packers' Assn.	San Francisco	Nushagak	April 12	Sept. 6
Star of India	Bark	1247	Alaska Packers' Assn.	San Francisco	Ugashik	April 10	Sept. 6
Star of Italy	Ship	1474	Alaska Packers' Assn.	San Francisco	Naknek	April 15	Sept. 8
Star of Lapland	Ship	3006	Alaska Packers' Assn.	San Francisco	Naknek	Mch. 15	Sept. 8
Star of Peru	Bark	976	Alaska Packers' Assn.	San Francisco	Loring	April 18	Sept. 19
Star of Poland	Ship	2987	Alaska Packers' Assn.	San Francisco	Kvichak	April 29	Oct. 21
Star of Russia	Ship	1981	Alaska Packers' Assn.	San Francisco	Cook's Inlet	Mch. 23	Sept. 27
Star of Scotland	Bark	2146	Alaska Packers' Assn.	San Francisco	Karluk	April 9	Oct. 11
Star of Zealand	Ship	2987	Alaska Packers' Assn.	San Francisco	Naknek	April 10	Sept. 6
St. Francis	Ship	1757	Libby, McNeill & Libby	Seattle	Nushagak	April 10	Sept. 5
St. Katherine	Bark	1090	Red Salmon C. Co.	San Francisco	Ugashik	April 11	Sept. 10
St. Nicholas	Ship	1687	Col. River Packers Assn.	Astoria	Nushagak	April 18	Sept. 1
St. Paul	Ship	1824	N. W. Fisheries Co.	Seattle	Orca	Mch. 20	Sept. 5
Tacoma	Ship	1671	Alaska Packers' Assn.	San Francisco	Nushagak	April 11	Sept. 7
Thistle	Steamer	56	Alaska Salmon Co.	San Francisco	Wood River	April 24	
Unimak	Steamer	158	Alaska Packers' Assn.	San Francisco	Karluk	April 14	Oct. 9
W. B. Flint	Bark	746	Libby, McNeill & Libby	Seattle	Kogglung	April 10	Sept. 5
Windber	Steamer	1820	Pac. Am. Fisheries	Bellingham	King Cove	Various dates.	Various dates
Wm. T. Muir	Steamer	43	Alaska Pacific Fisheries	Seattle	Yes Bay	May 4	Oct. 27

WEIGHTS AND MEASURES USED IN SOUTH AMERICA.

Following is table of equivalents of the weights and measures used in this country and those used generally in South American trade:

1 kilometre	..... miles	0.62
1 mile	..... kilometres	1.61
1 metre	..... feet	3.28
1 foot	..... metres	0.304
1 litre	..... quarts, dry	.91
1 litre	..... quarts, liquid	1.1
1 gallon	..... litres	3.8
1 kilogram	..... lbs	2.20
1 pound av.	..... kilogram	0.453
One dollar paper	..... cents gold	0.44
One pound sterling	..... paper	\$11.45
One dollar paper	..... sterling	1.8.95
One dollar paper	..... francs	2.20
One dollar paper	..... marks	1.78.10
One dollar paper	..... U. S. cent	42.49

CANNED SALMON SHIPPED TO OUR OUTLYING POSSESSIONS.

(Data are for the Government fiscal year.)

POSSESSIONS	1912		1913		1914	
	Pounds	Value	Pounds	Value	Pounds	Value
Philippine Islands	5,096,810	\$422,001	10,122,820	\$590,128	5,034,252	\$266,369
Porto Rico	710,721	65,354	666,002	66,811	416,414	41,726
Hawaii	1,850,567	194,385	1,841,874	173,202	1,418,941	97,532
Alaska	134,320	15,022	43,346	5,074	42,945	5,278
Total	7,792,418	696,762	12,674,642	835,215	6,912,552	410,905

P. E. HARRIS & CO.

(FORMERLY HAWK FISH CO.)

PUGET SOUND and ALASKA CANNED SALMON

WE MAINTAIN OUR OWN SALES DEPARTMENT

YOUR CHOICE OF THE FOLLOWING
HIGH CLASS LABELS

	ALASKA SOCKEYE	COHOE	PINK	CHUM
P. E. Harris & Co.—	SEAKIST FISH HAWK	TROJAN	DOUBLE "Q"	FAIRWEATHER
Taku Canning & Cold Storage Co.—	EXCURSION	AMIKAY	WONDER DISPATCH	TEMPLE TANDEM
Sunny Pt. Pkg. Co.—			SUNNY POINT	AL-KI

THESE GOODS ARE PACKED BY OLD ESTABLISHED CON-
CERNS—ARE OF DEMONSTRATED QUALITY
ALL GRADES PACKED IN TALLS, HALVES AND FLATS

General Offices: SEATTLE

WE SOLICIT CORRESPONDENCE WITH RESPONSIBLE BROKERS WHERE NOT
REPRESENTED

PACIFIC FISHERMAN

Canned Salmon Exports

EXPORTED TO	1910		1911		1912		1913		1914	
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars
EUROPE:										
Azores and Madeira Islands	100	12								
Belgium					48,000	4,000	13,000	940	45,590	3,024
Denmark					134,871	13,484	186,996	17,485	75,693	6,110
Finland			12,000	1,150			2,100	230		
France	1,878	223			480	58	33,120	2,710	14,400	1,143
Germany	424	51	1,340	163	193,341	16,140	11,929	3,688	55,738	4,870
Gibraltar							2,400	250	5,100	541
Italy							720	75	6,720	644
Malta, Gozo, etc.							9,600	732	2,400	300
Netherlands	9,744	1,020			240	35	9,456	1,095	11,000	1,100
Norway							250	26	3,300	320
Portugal					100	46				
Russia in Europe	11,580	1,210			1,700	175				
Spain	5,100	506	10,000	802	2,085	216	1,300	134	3,795	365
Sweden					96	10			7,200	700
Turkey in Europe									1,500	150
United Kingdom—										
England	44,737,072	4,709,160	22,110,988	2,406,573	19,148,107	2,148,328	25,076,343	2,674,626	62,318,612	5,982,247
Scotland					10,400	1,470	30,640	3,333	274,080	23,906
Ireland									7,200	450
NORTH AMERICA:										
Bermuda	26,484	2,383	19,348	2,242	32,648	3,540	58,392	5,633	43,346	3,966
British Honduras	28,310	2,606	45,396	4,478	25,980	2,873	27,153	2,768	31,486	3,430
Canada	99,022	7,570	53,828	4,470	353,309	33,150	992,053	105,813	3,632,465	314,917
Central American States—										
Costa Rica	157,946	12,237	152,101	14,215	205,304	19,989	100,964	7,627	149,848	10,247
Guatemala	16,821	1,361	23,696	2,417	38,925	4,056	53,991	4,162	46,171	3,744
Honduras	16,240	1,361	22,321	2,194	37,818	4,194	34,213	3,146	57,387	5,821
Nicaragua	28,116	2,066	61,096	6,173	70,702	6,981	128,597	9,185	50,497	3,880
Panama	482,717	45,404	318,672	30,866	386,612	43,371	587,909	48,959	367,678	31,350
Salvador	5,498	423	7,764	847	9,803	1,154	17,136	1,373	13,806	1,050
Mexico	697,217	50,782	663,681	59,405	1,454,580	126,613	1,427,853	102,853	754,172	53,665
West Indies—										
British—										
Barbados			48,261	5,028	84,207	8,884	32,303	3,542	77,836	6,013
Jamaica	548,561	53,939	94,230	9,987	206,972	20,207	288,243	26,107	188,856	17,895
Trinidad and Tobago			189,193	19,114	202,657	22,876	169,123	17,743	175,590	16,171
Other British			136,207	14,272	45,805	5,369	51,235	5,865	73,974	7,158
Cuba	68,787	6,486	78,814	7,817	109,953	11,462	160,933	13,281	306,749	21,917
Danish	14,655	1,512	14,180	1,414	8,661	1,020	6,716	742	13,259	1,273
Dutch	9,838	1,160	18,928	2,136	22,429	2,513	27,464	2,811	34,511	3,181
French	196	18	1,257	118	904	97	270	28	894	95
Italian	2,038	185	3,058	358	10,818	1,213	12,765	1,210	2,670	260
Santo Domingo	22,120	2,058	27,800	3,086	43,089	4,161	94,393	7,975	77,120	5,682
SOUTH AMERICA:										
Argentina	229,461	15,690	217,994	18,828	986,832	89,468	110,404	9,984	51,444	4,472
Bolivia	33,502	2,941	32,908	3,500	102,574	9,466	43,048	3,329	26,994	1,634
Brazil	267,354	28,241	317,809	35,171	151,717	17,348	219,492	22,820	100,129	7,211
Chile	1,536,629	92,259	1,491,689	121,833	3,986,595	345,295	2,318,720	143,574	2,123,237	134,678
Colombia	114,274	9,494	100,311	10,467	191,535	18,600	173,760	13,018	183,508	12,760
Ecuador	272,411	16,487	228,948	18,018	294,280	26,498	293,175	17,787	257,488	15,280
Guiana—										
British	222,398	22,133	118,034	13,035	152,470	16,868	214,349	22,438	132,455	13,444
Dutch	57,500	6,297	85,000	8,827	137,514	15,143	69,223	6,578	97,829	8,133
French	17,724	1,784	15,976	1,604	18,820	2,235	21,178	1,605	7,266	665
Paraguay					68	72				
Peru	367,676	24,817	295,235	24,170	589,285	51,855	513,311	34,129	301,374	10,091
Uruguay	11,730	1,167	12,940	1,294	18,897	2,292	8,633	883	4,660	351
Venezuela	43,144	4,887	89,774	9,796	127,264	14,243	148,878	17,222	186,074	15,936
ASIA:										
Aden							240	21	552	28
China	28,522	2,688	22,188	2,867	33,504	4,340	83,568	6,700	45,504	3,980
China, leased territory—										
British	3,120	345							1,920	200
Japanese							192	22		
Chosen	2,016	220	1,530	208	1,488	223	13,200	1,011	2,928	266
East Indies—										
British—										
British India	294,252	22,876	107,376	10,423	171,690	17,177	550,694	38,069	327,817	21,168
Straits Settlements	918,275	76,285	1,077,096	104,931	787,020	67,317	1,635,282	116,365	1,541,408	90,292
Other British	34,224	2,458	43,104	4,447	75,632	7,180	143,865	8,962	135,840	9,141
Dutch	189,604	15,920	171,840	17,937	253,026	24,813	356,448	31,084	331,776	22,408
French			96	8					624	43
Hongkong	121,558	12,234	61,650	7,362	144,552	17,115	767,810	49,360	480,036	32,109
Japan	3,716	352	3,072	347	235,114	21,667	2,256	289	2,614	274
Russia in Asia					144	14			144	13
Siam	1,008	93	960	147	960	143	30,360	2,208	480	60
Turkey in Asia			364	44			632	58	4,352	420
Other Asia	480	45								
OCEANIA:										
British—										
Australia and Tasmania	5,351,172	538,854	5,812,096	687,834	5,494,218	765,678	6,331,184	704,379	5,961,723	666,703
New Zealand	123,646	12,458	137,088	13,791	79,924	9,569	194,836	20,377	95,136	9,280
Other British	66,826	5,160	172,092	14,137	33,830	4,035	53,006	4,036	73,984	5,168
French	241,200	22,589	241,112	28,225	231,980	31,184	335,800	34,730	389,424	37,218
German	360,576	22,584	268,118	22,048	283,753	22,682	381,744	27,560	534,484	33,247
Philippine Islands	5,425,404	396,604	3,069,118	225,885	5,006,510	422,001	10,122,820	590,128	5,034,252	266,360
AFRICA:										
British Africa—										
West										
South	357,051	37,707	213,538	23,488	630,653	64,562	376,977	31,170	295,607	24,561
Egypt	1,440	120			7,392	861	20,936	1,808	15,024	1,059
German Africa	910	92	1,710	293	2,700	290	2,830	305	2,860	306
Italian Africa									2,400	230
Liberia			100	12	146	15				
Portuguese Africa	151,470	14,674	48,490	4,611	145,738	13,409	52,460	5,029	36,650	3,238
Spanish Africa			26,850	2,229	650	76	800	85	1,000	113
Total	63,860,696	6,314,258	38,600,799	4,037,142	43,423,756	4,620,563	55,290,966	5,103,340	87,750,920	7,999,293
RECAPITULATION:										
Europe	44,765,598	4,712,182	22,111,928	2,408,573	19,515,729	2,189,982	25,098,174	2,705,274	62,862,398	6,026,170
North America	2,224,516	191,511	1,979,950	190,637	3,411,176	332,692	4,271,710	370,823	6,997,615	511,545
South America	3,193,812	226,197	3,006,927	266,903	6,756,440	609,383	4,134,771	292,367	3,472,438	233,675
Asia	1,596,775	133,516	1,489,282	148,721	1,702,426	160,119	3,593,538	254,209	2,875,995	180,402
Oceania	11,568,824	998,219	9,699,624	991,540	11,220,515	1,255,149	17,419,390	1,441,270	12,089,003	1,019,994
Africa	510,871	52,593	290,688	30,633	787,479	79,238	463,403	39,417	353,541	29,597

NOTE.—The years represent the U. S. fiscal year, running from July 1 to June 30

Border Line Transportation Co.

Passenger and Freight Service

TO

ALL SOUTHEASTERN ALASKA POINTS
INCLUDING WEST COAST PRINCE OF WALES ISLAND

Large Capacity for Frozen Fish, or other cargo requiring
REFRIGERATION

Heavy Weights, Boilers, Etc., a Specialty

GENERAL FREIGHTING

Between all Points on
PUGET SOUND and to BRITISH COLUMBIA

S. S. "AL-KI," 1259 Registered Tons.

S. S. "DESPATCH," 910 Registered Tons.

S. S. "NORTHLAND," 571 Registered Tons.

S. S. "FULTON," 608 Registered Tons.

M. V. "WAKENA," 310 Registered Tons.

For Rates, Reservations, or Other Information, apply

DODWELL & CO., LTD., Agents

SEATTLE

Dock Office
Pier 5
Main 5842

Ticket Office
103 Yesler Way
Main 37

General Office
1141-50 Henry Bldg.
Elliott 147

Tacoma
Tacoma Bldg.

Victoria
Belmont Blk.

Vancouver
Yorkshire Bldg.

Portland
Concord Bldg.

San Francisco
Merchants Exchange

ALASKAN AGENTS

A. Shattuck,
Juneau, Alaska.

D. W. Hunt,
Ketchikan, Alaska.

W. De Armand,
Sitka, Alaska.

John Hensen,
Douglas, Alaska.

CANNED SALMON EXPORTS FROM CERTAIN PORTS IN 1914.

(Calendar Year.)

COUNTRIES	Puget Sound	New York	San Francisco
	Lbs.	Lbs.	Lbs.
Africa, British South	74,160	256,782	12,400
Africa, British West		68,960	
Africa, Spanish		1,000	
Africa, German South		2,020	
Africa, Portuguese		36,220	
Argentina		48,560	
Australia	38,248		6,484,464
Bermuda		58,971	
Brazil		41,238	
Barbados		7,382	60,240
Bolivia			21,600
Belgium	46,930	660	
British Columbia	1,487,203		
Costa Rica	22,800	3,548	68,496
China	2,448		49,104
Chile	378,960	27,486	750,700
Cuba	45,600	464,537	4,800
Colombia	6,000	78,888	58,560
Canada	1,080,582	24,100	
Denmark		368,953	240
East Indies, other British	41,040		70,944
East Indies, Dutch	141,504		117,844
Egypt	30,736		1,440
England	9,776,542	1,778,964	19,807,770
Gibraltar	3,600		1,500
Germany	16,800	1,398	240
Guatemala	2,400		15,168
Guiana, British		58,785	21,600

Guiana, Dutch		26,128	20,444
Guiana, French		4,828	3,600
Haiti		3,049	
Honduras		1,355	9,408
Honduras, British		2,730	
Hongkong		115,544	35,520
Italy		3,600	
India, British		84,580	590
Jamaica		6,000	56,072
Japan		2,744	
Mexico			138,577
Malta, Gozo, et			2,400
New Zealand			97,104
Netherlands		11,000	12,288
Nicaragua		4,800	243
Oceania, Other British		12,912	
Oceania, French		3,600	271,140
Oceania, German		62,020	420,072
Panama			134,937
Peru		18,000	26,680
Philippine Islands		4,939,230	803,492
Portugal			700
Russia in Asia			192
Spain		11,520	3,000
Salvador		132,000	750
Siam			48
Chosen			1,392
Scotland		132,000	750
Straits Settlement		540,208	7,056
Santo Domingo			74,265
Trinidad			15,450
Turkey in Asia			800
Turkey in Europe			600
Uruguay			3,300
Venezuela			167,832
West Indies, Other British		4,800	73,944
West Indies, Danish			10,406
West Indies, Dutch			30,714
West Indies, French			1,183
Total		19,238,593	3,923,413
			30,196,526

CANNED SALMON EXPORTS FROM UNITED STATES, 1905-1914.

	1905		1906		1907		1908		1909	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Europe	21,071,263	\$1,877,507	22,061,402	\$2,753,643	7,756,780	\$ 791,436	13,321,086	\$1,205,375	23,028,476	\$2,207,194
North America	1,565,773	132,134	2,069,690	171,946	3,052,658	261,138	2,654,175	242,879	2,209,405	198,043
South America	1,708,828	134,941	3,499,603	249,052	5,659,690	414,774	5,571,000	410,743	1,461,662	123,502
Asia	3,994,862	280,704	779,415	60,173	1,419,391	105,364	1,004,571	86,908	1,386,702	119,582
Oceania	5,257,446	467,928	6,340,346	509,257	6,719,157	552,205	5,131,554	439,917	7,383,494	705,204
Africa	1,468,383	142,253	1,194,291	103,872	610,429	58,132	543,639	52,696	647,370	62,911
Total	35,066,555	\$3,035,469	45,944,414	\$3,847,943	35,218,105	\$2,183,049	28,226,045	\$2,438,518	36,117,109	\$3,416,436
	1910		1911		1912		1913		1914	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Europe	44,765,898	\$4,712,182	22,134,328	\$2,408,708	19,545,720	\$2,183,982	25,408,154	\$2,705,254	62,862,328	\$6,026,170
North America	2,224,516	191,551	1,979,950	190,637	3,411,176	332,692	4,271,710	370,823	6,907,615	511,545
South America	3,193,812	226,197	3,006,927	266,903	6,756,440	609,383	4,134,771	292,367	3,472,438	233,675
Asia	1,596,775	133,516	1,489,282	148,721	1,702,426	160,119	3,593,538	254,209	2,875,995	180,402
Oceania	11,568,824	998,219	9,699,624	991,540	11,220,515	1,255,149	17,419,390	1,441,270	12,089,003	1,017,994
Africa	510,871	52,593	290,688	30,633	787,479	79,438	463,403	39,417	353,541	29,507
Total	\$3,860,696	\$6,314,258	38,006,799	\$4,037,142	43,423,756	\$4,620,563	55,290,966	\$5,103,340	87,750,920	\$7,999,293

Note—All data are for fiscal year ending June 30

James R. Baker & Co.

WHOLESALE COMMISSION MERCHANTS

—IN—

PUGET SOUND and ALASKA SALMON

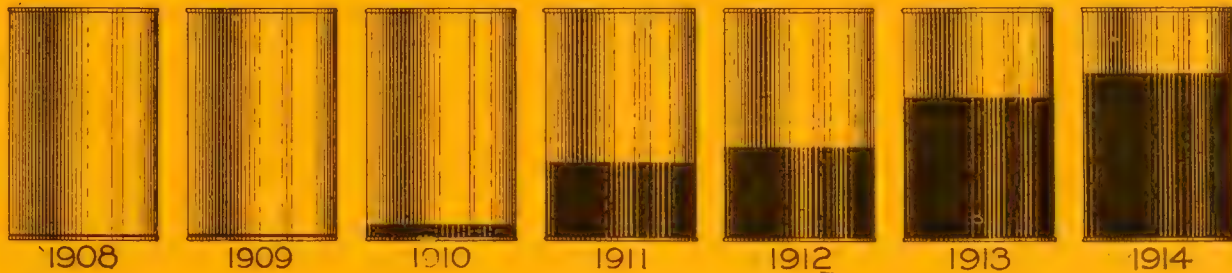
Hearst Bldg.
CHICAGO, ILL.

Franklin-Hudson Bldg.
NEW YORK

The Proportion of the Total
Salmon Pack Sealed in

SANITARY CANS

IS INCREASING EVERY YEAR



NOTE.—The darkened section of the above cans shows the portion of each year's pack marketed in Sanitary Cans.

Yesterday---

Eight years ago the sanitary can was unknown in the salmon canning industry.

Today---

The sanitary can is the standard of the industry. Two-thirds of the entire world output of canned salmon for 1914 appeared in the new container.

Tomorrow---

The packer who still clings to the soldered can will be as extinct as the "Dodo" if the present rate of progress continues.

American Can Company

SAN FRANCISCO
VANCOUVER

PORTLAND
BELLINGHAM

THE FOLLOWING

Will Use Sanitary Salmon

Johnson Closing

Alaska Sanitary Packing Company	Canoe Pass Packing Co.
Alaska-Portland Packers Assn.	Coquille River Fishermen's Co-op.
Alaska Packers Association	Packing Co.
(14 canneries)	Draney Fisheries, Ltd.
Alaska Pacific Fisheries	M. Des Brissay & Co.
(3 canneries)	Del Norte Salmon Canning Co.
Alaska Fish Company	Everett Packing Co.
Alaska Fishermen's Packing Co.	Fidalgo Island Packing Co. (4)
Anglo-B. C. Packing Co.	Friday Harbor Packing Co.
(6 canneries)	Florence Canning Co.
Ainsworth & Dunn	George & Barker Co.
Apex Fish Co.	George Inlet Packing Co.
Altoona Packing Co.	Goletas Fish Co.
Astoria & Puget Sound Packing Co.	Gosse-Millard Packing Co.
Atlin Construction Co.	Great West Packing Co.
F. C. Barnes Co.	Hawk Fish Co.
British Columbia Packers Assn.	Hidden Inlet Canning Co.
(12 canneries)	Hodgson & Graham Co.
British Columbia Canning Co., Ltd.	Hoquiam Packing Co.
Bellingham Canning Co.	David Hansen
Blaine Packing Co.	Jervis Inlet Canning Co.
Bugge Canning Co.	Kadiak Fisheries Co.
Canadian Fish & Cold Storage Co.	Kake Packing Co.
Chetlo Harbor Packing Co.	Key City Packing Co.
Carlisle Packing Co.	Kincolith Packing Co., Ltd.
John F. Childs	Klamath River Canning Co.
Clayoquot Sound Canning Co., Ltd.	Wm. Kyle & Sons
Columbia River Packers Assn.	W. W. Kurtz
Copper River Packing Co.	

American Can Company

SAN FRANCISCO PORTLAND
VANCOUVER BELLINGHAM

SALMON PACKERS

Cans Sealed With

Machines in 1915

A. H. Lawrence	San Juan Canning Co.
Lindenberger Packing Co.	San Juan Fishing & Packing Co.
J. Lindenberger, Inc.	Scottish-Canadian Canning Co.
Lummi Bay Packing Co.	Seattle Packing Co.
Libby, McNeill & Libby	Seattle & Puget Sound Packing Co.
P. J. McGowan & Sons	Seattle Canadian Canning Co.
J. G. Megler & Co.	Seufert Bros. Co.
Midnight Sun Packing Co.	Shaw Island Canning Co.
Morse & Son	E. A. Sims
Macleay Estate Co.	J. L. Smiley & Co.
Nanaimo Canning Co.	Southern Oregon Company
Naket Inlet Packing Co.	Steveston Canning Co., Ltd.
Naknek Packing Company	Swift, Arthur & Co.
National Independent Fisheries Co.	Sunny Point Packing Co.
North Alaska Salmon Co.	Starr-Collinson Packing Co.
Northwestern Fisheries	W. E. Tallant
North Pacific Trading & Packing Co.	Tallant-Grant Packing Co.
Northern Canning Co., Ltd.	Thlinket Packing Co.
Oregon Fisheries Co.	Vancouver Canneries, Ltd.
Pacific American Fisheries Co.	Wallace Fisheries, Ltd.
Pacific Fisheries & Packing Co.	Ward's Cove Packing Co.
Pillar Rock Packing Co.	Warren Packing Co.
Puget Sound Packing Co.	West Coast Packing Co.
Pure Food Fish Co.	Wiese Packing Co.
Quathiaski Canning Co., Ltd.	Willapa Harbor Fish Co.
Red Salmon Canning Co.	Western Cannery, Ltd.
Sanborn-Cutting Company	Wm. Westbrook
Sanborn-Cram Company	

American Can Company

SAN FRANCISCO
VANCOUVER

PORTLAND
BELLINGHAM

SANITARY SALMON CANS

Made on the ONLY successfully demonstrated can making machinery, and sealed with

JOHNSON CLOSING MACHINES

FACTS ABOUT THEM--

The following figures show the rapid development of the Sanitary Can in the Salmon Industry on the Pacific Coast:

YEAR	TOTAL PACK Cases, 4 Dozen	SANITARY PACK Cases, 4 Dozen
1908	3,962,317	547
1909	5,391,186	1,263
1910	4,316,453	246,375
1911	6,122,486	1,687,420
1912	5,948,855	2,250,000
1913	8,063,447	5,280,000
1914	6,644,782	4,916,104

The 1914 pack was considerably smaller than that of the previous year. Hence an apparent falling off in Sanitary Cans used. Comparing 1914 with 1911 and 1912, when about the same amount of fish was packed, it will be seen that the use of Sanitary Cans has greatly increased each year.

There's a Reason

Ask any packer who has used them! He will tell you that he will continue using them, and that the days of the soldered can are numbered. WHY?

BECAUSE

Sanitary Cans are the best containers for Salmon and all kinds of fish.

THEY

Improve Quality
Prevent Leaks
Reduce Labor
Save Time
Increase Profits

American Can Company

SAN FRANCISCO
VANCOUVER

PORTLAND
BELLINGHAM

Review of 1914 Foreign and Domestic Salmon Market

KELLEY-CLARKE CO.

The year 1914 was ushered in with quite a substantial stock left of the cheaper grades of salmon, which met with rather a sluggish market until midsummer, when a steady demand encouraged an advancing market in all grades without any excitement until the latter part of July and the first part of August, at the time the war broke out, when considerable excitement developed and the low grades advanced sharply. However, a large majority of the carry-over stock had been disposed of at the opening prices, and the latter part of August but comparatively few remained. In fact, as far as Chums were concerned, we had been shipping down early pack Chums from Alaska during July to take care of the demand that existed for both Chums and Pinks together, as the 1913 stock of Chums had been exhausted.

After the opening of prices, which were made as moderate as seemed consistent with the conditions that surrounded the commercial world, a very substantial business was booked and much was expected in the way of foreign orders for supplies for the warring countries. Up to the present time, however, this has not developed into an actuality and today, if any foreign country should desire to buy a good, substantial quantity of Pink salmon, it would be very difficult to fill a large order.

There was quite a substantial stock of Chums left at the end of the year in packer's hands and from time to time during the month of December there was a disposition on the part of some packers who felt that they had to have some money, to cut the price substantially in order to move them promptly. This seems to have spent itself and the quantities that are left are seemingly in very strong hands

and with a strong tendency to keep the market up to the opening prices.

In summarizing the condition of affairs at the end of the year, we must say we feel conditions are in fairly good shape. There has been sufficient quantity of each grade sold to make packers feel satisfied to wait patiently for further consumptive demand to move what is left. And there is the ever present hope that sooner or later the belligerent countries will feel that salmon can be made an important food product for the commissaries of their armies, which, if realized, would clean up the surplus stock to an extent that it has never been cleaned up before. But in the ordinary course of consumptive business of the world, we cannot but feel that by next summer we will see a very satisfactory disposition of the pack of 1914.

GRIFFITH-DURNEY CO.

The year 1914 has been in many ways a remarkable one, but in the canned goods line salmon is the star feature.

While early in 1914 first hands were cleaned up on everything except Sockeyes and Pinks, dealers and retailers were carrying fairly good stocks, hence there was very little interest shown in salmon of any grade up to April, when buyers began to purchase more or less Alaska Reds and Pinks. The year 1913 closed with all grades selling at opening prices, excepting Alaska Reds \$1.20 and Pinks 65c, but about the middle of April the market commenced to firm up, and by the last of July Alaska Red was selling at \$1.25 and Alaska Pink at 70c. By the middle of July, owing to heavy consumption, Red had advanced to \$1.40 and Pink to 80c, other grades advancing proportionately. Therefore, the trade generally was prepared for the open-

OPENING PRICES AND PACK, 1903-1914.

Pack figures are shown in units of 1,000 cases. Where no figures appear it can be assumed that less than 1,000 cases were packed.

GRADE—STYLE	1914		1913		1912		1911		1910		1909		1908		1907		1906		1905		1904	
	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.	Pr.	Pck.
Columbia River Chinook:																						
1-lb. Tall.....	\$1.95	50	\$1.95	29	\$1.95	250	\$1.95	145	\$1.75	86	\$1.65	50	\$1.65	47	\$1.65	59	\$1.50	302	\$1.45	54	1.45	131
1-lb. Flat.....	2.10	130	2.00	97	2.00	79	2.00	97	1.90	71	1.75	76	1.75	100	1.75	91	1.60	.....	1.55	133	1.55	230
½-lb. Flat.....	1.25	107	1.25	67	1.25	91	1.30	154	1.10	75	1.05	63	1.05	62	1.05	107	1.00	.....	1.90	168	.90	.....
Alaska King:																						
1-lb. Tall.....	1.40	42	1.00	33	1.40	47	1.80	45	1.35	35	1.10	48	1.05	23	1.05	40	.90	39	.95	39	1.05	41
1-lb. Flat.....		2	1.15	.....	1.60	.....	2.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....
½-lb. Flat.....	1.10	3	.90	1	1.15	5	1.12½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puget Sound Sockeye:																						
1-lb. Tall.....	1.95	12	1.50	967	1.95	46	1.95	40	1.65	66	1.35	439	1.60	76	1.65	11	1.45	182	1.35	444	1.55	68
1-lb. Flat.....	2.15	170	1.65	485	2.00	54	2.00	23	1.80	82	1.50	427	1.75	70	1.75	41	1.60	.....	1.50	392	1.65	36
½-lb. Flat.....	1.35	152	1.65	221	1.30	83	1.30	64	1.10	96	1.00	149	1.05	17	1.10	37	1.00	.....	1.00	100	.95	.....
Alaska Red:																						
1-lb. Tall.....	1.45	2,058	1.15	1,918	1.40	1,856	1.60	1,269	1.35	1,360	1.15	1,698	1.15	1,612	1.15	1,223	.95	1,400	1.00	1,532	1.30	1,408
1-lb. Flat.....	1.80	87	1.35	18	1.60	21	1.75	34	1.50	41	1.35	42	1.35	27	1.35	41	1.15	46	.....	20	.....	.....
½-lb. Flat.....	1.10	55	.95	29	1.15	26	1.12½	16	1.00	32	.85	14	.90	11	.95	44	.85	41	.....	9	.....	.....
Puget Sound Medium Red																						
1-lb. Tall.....	1.15	105	.85	20	1.15	97	1.45	180	1.25	102	1.05	101	1.00	68	1.00	56	.85	103	.85	20	.95	61
1-lb. Flat.....	1.35	35	1.00	38	1.25	14	1.60	30	1.40	26	1.20	20	1.10	18	1.15	27	1.00	.....	.....	23	.....	45
½-lb. Flat.....	\$2¼	19	.70	2	.80	36	1.00	36	.80	32	.70	16	.75	11	.80	29	.72½	.....	.....	50	.....	.....
Alaska Medium Red:																						
1-lb. Tall.....	1.15	152	.85	73	1.15	162	1.45	117	1.25	105	1.05	54	1.00	66	1.00	79	.85	89	.85	66	.95	82
1-lb. Flat.....	1.35	.....	1.00	1	1.25	1	1.60	11	1.40	5	1.20	1	1.10	1	1.15	6	1.00	17	.....	18	.....	.....
½-lb. Flat.....	\$2¼	4	.70	3	.80	5	1.00	1	.80	.....	.70	.....	.75	.....	.80	1	.72½	.....	.....	.....	.....	.....
Puget Sound Pink:																						
1-lb. Tall.....	.90	.....	.65	762	.....	.....	1.00	946	.....	.....	.60	361	.75	.....	.80	364	.....	.....	.70	69	.....	319
1-lb. Flat.....	1.00	.....	.80	17	.....	.....	1.15	57	.....	.....	.80	.....	.....	.....	.62	.....	.....	.....	.....	3	.....	.....
½-lb. Flat.....	.70	.....	.55	13	.....	.....	.80	42	.....	.....	.....	.....	.....	.....	.25	.....	.....	.....	.....	2	.....	.....
Alaska Pink:																						
1-lb. Tall.....	.90	986	.65	1,378	.65	1,290	1.00	1,020	.80	564	.60	506	.70	707	.80	690	.75	461	.70	156	.70	299
1-lb. Flat.....	1.00	9	.80	5	.65	.....	1.15	.....	.....	.....	.....	.....	.....	.....	.90	.....	.85	.....	.....	.....	.....	.....
½-lb. Flat.....	.70	2	.55	21	.55	13	.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puget Sound Chum:																						
1-lb. Tall.....	.85	273	.55	54	.62½	59	.95	90	.77½	142	.57½	52	.70	52	.75	51	.70	155	.70	42	.....	49
1-lb. Flat.....	.95	.....	.70	2	.....	.....	1.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
½-lb. Flat.....	.65	4	.50	.....	.50	1	.75	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alaska Cham:																						
1-lb. Tall.....	.85	656	*.55	261	.62½	634	.95	303	.77½	235	.57½	88	.70	168	.75	144	.70	131	.70	36	.....	21
1-lb. Flat.....	.95	5	.70	6	.....	1	1.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
½-lb. Flat.....	.65	.....	.50	1	.50	2	.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* The opening price in San Francisco was 60 cents.
 Note.—Prices quoted are for one dozen cans.

GRIFFITH-DURNEY CO.

SAN FRANCISCO

LEADING SALMON HANDLERS

Canned Salmon

Canned Fruits

Canned Asparagus

Canned Pineapple

Canned Tuna

ing prices of 1914, and within thirty days after they were announced 75 per cent of the pack was sold at prices from 25 to 45 per cent per dozen over the opening prices of the previous year.

Considering the size of the current year's pack, this advance in price is one of the reasons that makes the year 1914 a remarkable one, and the fact that we have broken the record for a short year makes it all the more remarkable, for while 5,000,000 cases is the average pack for five years, this year's pack will come very close to 6,500,000 cases.

When we take into consideration the pack and the present situation, we have every reason for calling the year 1914 a remarkable one. As for example, Chinooks are practically sold up, Sockeyes are in very light supply, and

with the exception of two factors, Alaska Red is cleaned up. Pinks are almost a thing of the past. Packers are entirely out of Pinks, the stock on the coast consisting of a few thousand cases owned by second hands. The only grades that are in good supply are Medium Reds and Chums, but as other grades are so closely cleaned up the stock of these two grades, in our opinion, will not be sufficient to supply the trade until the new pack is ready for shipment.

Another thing that makes the year 1914 remarkable is the fact that domestic buyers have all purchased conservatively. There is not a dealer in the United States who has bought his usual amount, or is carrying sufficient salmon of any grade to last him until the new pack is ready for shipment.

OPENING PRICES SINCE 1897.

1897.	Talls
Columbia River Chinook.....	\$1.05
Puget Sound Sockeye.....	.80
Alaska Red .....	.90
Alaska Pink .....	.65

1898.	Talls
Columbia River Chinook.....	\$1.05
Puget Sound Sockeye.....	.80
Alaska Red	1.00
Alaska Pink .....	.65

1899.	Talls
Columbia River Chinook.....	\$1.25
Puget Sound Sockeye.....	1.10
Alaska Red	1.00
Alaska Pink .....	.67½

1900.	Talls
Columbia River Chinook.....	\$1.60
Puget Sound Sockeye.....	1.10
Alaska Red	1.10
Alaska Pink .....	.75

1901.	Talls
Columbia River Chinook.....	\$1.50
Puget Sound Sockeye.....	.95
Alaska Red	1.25
Alaska Pink .....	.75

1902.	Talls
Columbia River Chinook.....	\$1.35
Puget Sound Sockeye.....	1.00
Alaska Red .....	.95
Alaska Pink .....	.65

1903.	Talls	Flats	Halves
Puget Sound Sockeye.....	\$1.50	\$1.60	\$.90
Columbia River Chinook..	1.35	1.45	.85
Alaska Red	1.30	.....	.....
Alaska Pink .....	.50	.....	.....

1904.	Talls	Flats	Halves
Columbia River Chinook..	\$1.45	\$1.15	\$.90
Puget Sound Sockeye.....	1.55	1.65	.95
Alaska Red	1.30	.....	.....
Alaska Pink .....	.70	.....	.....

1905.	Talls	Flats	Halves
Columbia River Chinook..	\$1.45	\$1.55	\$.90
Puget Sound Sockeye.....	1.35	1.50	4.00
Alaska Red	1.00	.....	.....
Alaska Pink .....	.70	.....	.....

1906.	Talls	Flats	Halves
Columbia River Chinook..	\$1.50	\$1.60	\$1.00
Puget Sound Sockeye.....	1.45	1.60	1.00
Alaska Red .....	.95	.....	.....
Alaska Pink .....	.75	.....	.....

1907.	Talls	Flats	Halves
Columbia River Chinook..	\$1.65	\$1.75	\$1.05
Puget Sound Sockeye.....	1.65	1.75	1.10
Alaska Red	1.15	.....	.....
Alaska Pink .....	.80	.....	.....

1908.	Talls	Flats	Halves
Columbia River Chinook..	\$1.65	\$1.75	\$1.05
Puget Sound Sockeye.....	1.60	1.75	1.05
Puget Sound Pink .....	.75	.80	.....
Puget Sound Cohoe.....	1.05	1.15	.75
Alaska Red	1.15	.....	.....
Alaska King	1.05	.....	.....
Alaska Cohoe.....	1.00	.....	.....
Alaska Pink .....	.70	.....	.....
Alaska Chum .....	.70	.....	.....

1909.	Talls	Flats	Halves
Columbia River Chinook,			
Fancy	\$1.65	\$1.75	\$1.05
Puget Sound Sockeye.....	1.35	1.50	1.00
Alaska Red	1.15	1.35	.85
Alaska King	1.10	.....	.....
Alaska Cohoe	1.05	1.20	.70
Alaska Pink .....	.60	.....	.....
Alaska Chum .....	.57½	.....	.....

1910.	Talls	Flats	Halves
Columbia River Chinook,			
Fancy	\$1.75	\$1.90	\$1.10
Puget Sound Sockeye.....	1.65	1.80	1.10
Alaska Red	1.35	1.50	1.00
Alaska King	1.35	.....	.....
Alaska Pink .....	.80	.....	.....
Alaska Chum.....	.77½	.....	.....
Medium Red and Cohoe..	1.25	1.40	.80

1911.	Talls	Flats	Halves
Columbia River Chinook,			
Fancy	\$1.95	\$2.00	\$1.30
Puget Sound Sockeye.....	1.95	2.00	1.30
Alaska Red	1.60	1.75	1.12½
Alaska Medium Red.....	1.45	1.65	1.00
Alaska King	1.80	2.00	1.12½
Pink	1.00	1.15	.80
Chum .....	.95	1.05	.75

1912.	Talls	Flats	Halves
Chinook	\$1.95	\$2.00	\$1.25
Sockeye	1.95	2.00	1.30
Alaska Red	1.40	1.60	1.15
Alaska Medium Red.....	1.15	1.25	.80
Alaska King	1.40	1.60	1.15
Pink .....	.65	.65	.55
Chum .....	.62½	.....	.50

1913.	Talls	Flats	Halves
Chinook	\$1.95	\$2.00	\$1.25
Sockeye	1.50	1.65	1.05
Alaska Red	1.15	1.35	.95
Alaska Medium Red .....	.85	1.00	.70
Alaska King	1.00	1.15	.90
Pink .....	.65	.80	.55
Chum .....	.55	.70	.50

1914.	Talls	Flats	Halves
Chinook	\$1.95	\$2.10	\$1.25
Sockeye	1.95	2.15	1.35
Alaska Red	1.45	1.80	1.10
Medium Red	1.15	1.35	.82½
Alaska King	1.40	.....	1.10
Pink .....	.90	1.00	.70
Keta, or Chum .....	.85	.95	.65

The cotton situation in the southern states prevented packers from securing their usual southern business, but this lack of trade in the South and conservative buying in the North was more than offset by the export trade, hence, with the exception of Medium Reds and Chums, the market is more closely cleaned up than it usually is at this time of the year.

From statistics compiled from all quarters we estimate the 1914 pack as follows:

Alaska	4,000,000 cases
Puget Sound	650,000 cases
British Columbia	1,110,000 cases
Columbia River, spring and fall....	500,000 cases
Outside Rivers	150,000 cases
Total	6,410,000 cases

GORMAN AND COMPANY.

While the pack of 1914 is probably one million and a half cases less than that of the preceding year, yet with the carry-over, principally in Puget Sound Sockeyes, the supply in first hands when opening prices were named in the aggregate were about the same as in 1913, and notwithstanding the very much higher prices now for the 1914 pack, as against the pack of the previous year, the trade took hold in good shape and bought heavily of every grade, thereby, we believe, justifying our statement and predictions submitted in your Year Book.

While 1914 was a short year on Sockeyes, there was more than an average pack of Red Alaskas, but notwithstanding the higher prices at which they opened, they were taken readily by both foreign and domestic buyers.

Medium Reds also found a ready market at opening prices in all sizes.

As for Pinks, the very short pack in Southeast Alaska, with none being produced on Puget Sound, gave them probably the strongest position of any of the grades, and at this time there are practically none left in first hands.

While it is quite true the pack of Chums was largely in excess of an average year, yet the pack of the two grades—Pinks and Chums taken together—was considerably less than that of 1913, and while they were offered to the trade at prices considerably higher than previous years, and such as to give the packer some profit, even Chums have gone much into consumption. So much so in fact that at the present time we fell quite safe in saying that there are less than three hundred and fifty thousand cases of Chums and Pinks remaining unsold in first hands today, which is a very light supply indeed, with practically all of the consuming months to be taken care of before the new pack comes into the market. Hence we cannot see any reason for lower than opening prices on Pinks or Chums during the balance of the present year, and at present prices they are better value, dollar for dollar, than the higher grades at the prices at which they are being held today, and we feel quite confident that the domestic market, without any more foreign business than has been done to date, will absorb every case of salmon now in first hands with the possible exception of Sockeye tails, which packers are disposed in any event to carry over into next year on account of the certain short supply.

C. B. HUIET.

At the beginning of the year the prospects for a large and satisfactory business from the 1914 pack of salmon were very flattering and conditional bookings were exceptionally heavy; stocks with the jobbers were not burdensome and in anticipation of a large fall business they contracted freely and had not the European conflict seriously demoralized conditions in the southern states, we would have seen record sales of salmon on the opening of the market. When the market opened, the war in Europe was already having its effect on southern trade conditions, and jobbers bought cautiously, though some took their usual requirements, being hopeful that the war would be short lived and conditions soon become normal again. Business, however, in the cotton producing states has not improved up to the date of this writing, in fact has, to the contrary, become worse, and most jobbers who bought salmon in August have found considerable difficulty in obtaining the money with which to finance them. This situation has brought about many requests for cancellations of contracts and has caused much inconvenience to the large distributing brokers.

Charleston has become recognized as the chief point of distribution of Pacific Coast products south of New York city, and the business handled through this port during 1914 has shown wonderful increases, despite the unfavorable conditions existing in the territory supplied from Charleston. On the opening of the Panama Canal the principal steamship lines announced a rate of 30c per hundred pounds on canned fish, fruits and vegetables from the Pacific Coast to Charleston, which was just fifty per cent of the rate assessed in former years. This material reduction in rate has enabled Charleston distributors to operate in a much larger territory than has heretofore been possible, and much business destined to such states as Tennessee, Kentucky, Alabama, etc., which formerly moved all-rail, is now moving through this port. The tonnage via Charleston should increase from year to year, as some of the interior jobbers have yet to realize the great advantages of the Panama-Charleston route.

The American-Hawaiian Steamship Company has, during the first three months of this season, already sent three cargoes direct to Charleston, with another enroute, and several others scheduled after the New Year. The American-Hawaiian Steamship Company will alone handle over 500,000 packages of Pacific Coast products through Charleston from the 1914 outturn, and as the Atlantic and Pacific Steamship Company and the Luckenback Steamship Company have both sent boats into Charleston since the opening of the canal, with further sailings contemplated, there will undoubtedly be distributed through this port this season in the neighborhood of three-quarters of a million packages of Canned Salmon, canned fruits, canned vegetables, beans, etc. The enormous increase in business has encouraged new warehousing and reforwarding companies and Charleston is well prepared to look after these features of the movement.

As stated above, business in the South at the present is at a practical standstill, for the extremely low price of cotton, which is the basis of the South's prosperity, has brought about a stringent money situation that has temporarily "clogged the wheels of commerce." We believe, however, there will be a decided improvement after the opening of the New Year and, with easier money and a better cotton market, we anticipate a good demand for Canned Salmon, as well as other food products, for stocks with brokers, jobbers and retailers are not nearly normal and must soon be replenished.

B. F. STONE.

Review of conditions surrounding the marketing of salmon in tins and tierces, output of 1914, is somewhat interesting, in view of abnormal conditions existing since the first of August last.

Early indications pointed toward a satisfactory market in the United States, as was evidenced by the clearance of the entire output of fancy spring Columbia river packing, all of which was marketed and the greater portion shipped prior to the declaration of war.

In this country most stringent conditions as to purchases were evident throughout the Southern states, consequent upon the low price of cotton, which during the depression immediately after declaration of war sold as low as 7½c in New York; in fact, during November, May deliveries were sold at 8c per pound, delivered in New York, seller incurring freight and carrying charges, necessitating purchase price of about 6c per pound to insure profit. Market has advanced materially under exports and a marked increased demand in this country.

That buyers of salmon in the Southern states are in comparatively normal condition at present is evidenced through large purchases of Chum salmon recently at 65c f.o.b. coast.

For the purpose of aiding holders of cotton in the South, bankers of several sections formed a pool, contributing in the aggregate \$135,000,000, which was offered to holders of cotton on a loaning basis of 6c per pound, interest at 6 per cent. Only about \$40,000,000 of this amount has been loaned.

Theoretically, salmon, from the standpoint of food products, should be in demand at full prices. Practically, the reverse is true.

Stocks on this coast without doubt were heavier on the first of January last, than at any time in the history of the business at that date, and with the exception of movement of a large quantity of Chums, shipments have been desul-

tory and not of appreciable magnitude. Commercial paper in New York immediately after the declaration of war was difficult of sale or discount at under 8 to 8½ per cent, and on this basis was not in demand. At present the discount rate is from 3 to 3½ per cent for approved commercial bills, 60 to 90 days. Federal reserve banks' discount rate is 4 per cent, 30 day paper, 4½ per cent and upward for 60 or 90 day paper. It is evident that bankers generally are not availing themselves of this privilege.

Reserve of the New York banks during August and September was below the legal limit. On the 31st of January the reserve was \$144,000,000 above the legal limit. The fact that bankers have not availed themselves generally of the privileges of re-discounting is evidence that money is plentiful. The fact, however, that money is plentiful is an indication of lack of demand and a light movement of merchandise.

Exports of wheat and all grain and flour is very heavy; will probably continue during the present cereal year and for the coming cereal season at record prices. Notwithstanding, however, these favorable reports and, theoretically, a demand for salmon, it is difficult to analyze the situation sufficiently clear to state why salmon does not move. Possibly the opening price of Alaska Red this season has had some bearing upon a smaller demand than usual, and financial conditions on the east and west coasts of South America have without doubt curtailed purchases of the lower grades.

One would infer from the results of the season of 1914 as to the higher grades, i. e., spring Columbia river Chinook, Sockeyes, Bluebacks and Quinaults, that consumers who do not consider the retail price have not purchased less than in former years, inasmuch as the output on the Columbia river was above normal, but, on the other hand, those who are compelled to consider carefully the amount expended daily for food products, have, for some reason, not consumed salmon to as great extent as in average seasons. I refer particularly to the standard grades: Alaska Red, Medium Red, Pink and Chum.

Opening prices of Pinks and Chums did not permit of a retail price of 10c per can, which unquestionably has, to a great extent, lessened consumption, and inasmuch as those who have studied carefully the economic side of food products are of the firm opinion that the retail price governs consumption to a greater extent than packers appreciate, i. e., a low price for particularly the two lower grades, which permits a retail price and satisfactory profit to the jobber and retailer at 10c per can, is apparently the one point that must in future years be carefully considered under heavy output.

Innumerable negotiations for export have passed by cablegram during the past three months, but I am under the impression that the actual sales to Great Britain particularly have not been appreciably above normal.

That eventually sales of magnitude will be consummated I am confident, but a buyer on the other side who is thoroughly conversant with the freight situation, war risk and the present rate of exchange, is somewhat loath to purchase, and it is probable purchases will not be consummated to any extent until stocks are absolutely depleted.

Shipments of pickled salmon to New York for consumption in that market, and in transit for Germany via Rotterdam and Copenhagen, have, under the circumstances, been exceedingly satisfactory since the first of September last. Rate of freight to Copenhagen for instance, has advanced from say 42/6 to 160 shillings, which advance in connection with the war risk and rate of exchange, has advanced the actual cost of mild cured salmon to buyers fully 5c per pound. Notwithstanding, however, this additional cost, buyers have taken delivery of greater portion of quantities named in contracts, spring packing of 1914 on the Columbia river, and Alaska and Sacramento fish, evidencing beyond question that consumers in Germany demand smoked salmon even at present high prices.

In view of the foregoing, and, in fact, actual existing conditions as to finances, value of salmon as a food product compared with all other food products, why should salmon not move freely to the United States markets during the next ninety days, and if Eastern buyers purchased freely we may eliminate the illusory export demand. If, on the other hand, export demand should materialize, handlers of salmon in the Eastern states will pay dear

for the desultory and abnormally light demand for the past ninety days.

ANDERSON & COLTMAN, LTD.

At the end of the year 1913 we ventured so far beyond the scope of our usual report as to express the opinion that there was nothing to prevent the continuation of the then good demand, and that it would not require to continue very long in order to increase the value of Salmon especially in view of the fact that holders of stock would not run their stocks very low, because the 1914 pack would almost certainly be held for a much higher range of prices than those then ruling. It happens that the above suggestion contained in advance practically all the history of the 1914 Salmon campaign. The suggestions, however, which we made were fulfilled very much more quickly than we anticipated, and the advanced price of the 1914 pack was in fact established on a much higher basis than we anticipated, and at a much earlier period of the year, because at about the beginning of February, 1914, the market was established for the season's pack at an advance over the 1913 price, equivalent to the increase of value which usually takes two years to establish. In other words the 1914 pack was practically all marketed at prices which in the ordinary way would not have been justified until 1915.

This advance in value was not the result of any manipulation on the part of the packers; it was simply the result of competition amongst the buyers. The packers would have preferred to leave the marketing of their goods until much later in the year, but the prices which were offered by the buyers were so good that they considered that it would have been improvident to have refused them. The demand has been well maintained right through the year, and the deliveries during some months have beaten any previous record, but it must be remembered that the prices paid in the early spring for the 1914 pack did not produce any immediate effect upon the prices charged to retailers for the 1913 pack, so that while the importers were paying increased prices in anticipation of the demand during the Autumn of 1914 and Spring of 1915, they were to a very large extent giving their customers the full benefit of the lower prices at which the 1913 pack had been imported, and it seems that the business has been so well managed that the consumption has not been retarded, and at the same time the stocks have not been allowed to be unduly depleted, and there are, in fact, sufficient stocks on hand and coming forward of nearly all kinds of Salmon to meet a normal demand until the 1915 pack becomes available.

It is impossible to avoid in any Market Review a reference to the conflict in which our nation is unfortunately involved, but there is probably no article which has been less affected by the war than Canned Salmon. For a few days in early August some high prices were paid by buyers who insisted on making purchases from unwilling sellers, but otherwise we believe that the market is simply following the same course as it would have done if there had been no war, except that it has had to bear extra insurance and freight charges, but these have not proved to be a burden which the article was incapable of bearing.

Alaska Reds.—In January, 1914, the spot value was 21/6 ex wharf, and the forward value 22/-, but prices gradually strengthened and reached 22/6 ex store in March, 23/6 in May. At this price they remained until the first week in August when 28/- ex store was made for limited quantities. This price was not maintained, and in the early part of September 26/6 was accepted, and in the latter part of September 26/-. The value has remained in the region of 26/- to 26/9 until the time of writing. The demand for Alaska Salmon was undoubtedly affected by the unfortunate fact that a considerable portion of the pack was affected by the excessive heat which occurred in Alaska during a few days of the packing. This excessive heat, which exceeded anything known in the previous thirty years, rendered Alaska Salmon less reliable in quality than is usually the case, and consequently holders showed more anxiety to get the goods into consumption than the general conditions of the market and anticipation of the price of the 1914 pack would in themselves have justified.

It was generally expected that the opening price of the 1914 pack would be in the region of 24/- to 25/-, but early in the new year a quantity estimated at 50,000 cases was placed at about 22/6, and this caused a certain amount of

uncertainty in the minds of buyers as to the stability of the market in America, and also caused a considerable delay in establishing a price which the canners ultimately found it necessary to establish, namely, 26/- quay. This price included the extra freight and war risk insurance and financial charges brought about by the war, so that in fact the ordinary market estimate of between 24/- and 25/- was about correct, because the extra charges imposed a burden of a least 1/- per case upon the goods. The position was further complicated by some sellers making offers of goods on a c. i. f. basis, payment by three days sight draft and war risk for buyers account. These quotations were freely circulated and caused some confusion and delay in getting ordinary business through. There was the additional element of the uncertainty in buyers' minds as to what effect the war might have upon general business conditions and on the demand for Alaska Salmon. The question of shipment was also one of some difficulty, because when it became known that the bulk of the goods would come via Panama, buyers were unwilling to commit themselves as heavily as they would have done had the goods been coming by the long route which would have brought the goods to the market at a more convenient time so far as the buyers were concerned.

The result of these unusual circumstances was that the business was not done as quickly as usual, but in the aggregate the volume has been quite satisfactory and the better known brands have been taken in quantities which have quite satisfied the sellers. According to our information the trade have practically absorbed all the canners had to spare for the English market.

Alaska and Puget Medium Reds.—The quality of the 1913 pack proved to be very good, and with the gradually increasing value of Red Salmon, Medium Reds found a better demand, with the result that the spot price gradually rose from 16/- to 20/-, and in some cases even 21/- for specially good parcels. The quotation for the 1914 pack did not attract buyers to any appreciable extent.

Alaska and Puget Pinks.—The old stocks which were weighing upon the market in the early part of the year were cleaned up at practically any price, and were replaced by very good quality of the 1913 pack, which were imported in the early part of 1914 on the basis of 14/6 per case, and met with quite a satisfactory reception, so that the value steadily improved, and there is now nothing to be obtained under 16/-. At this price the demand is slow but steady. The imports on the basis of 14/6 were sufficiently large to make buyers very independent of the 1914 pack, and not much business has been reported for ordinary domestic consumption in this country at the price of 16/10 which was asked for the 1914 pack.

Considerable sales have been reported for Continental requirements, and we understand the domestic trade in America and Canada have absorbed practically all the Pinks of good and reliable quality. Therefore the existing stocks in warehouse and on the way will have to supply whatever demand there may be until the 1915 pack is available. Pink Salmon of good quality has undoubtedly established itself in the English market, and the demand seems to be capable of considerable expansion, provided the imports are limited to strictly choice quality.

British Columbia Sockeye.—1-lb. flats. In January goods on the way were sold at 30/6 quay. In February there were sellers at 31/3 ex store. In April 31/9 was paid, and in May 33/-. The price had risen to 35/- in August, and from that time to the end of the year there was no material change in the spot value, but this was largely in consequence of the 1-lb. flat tins being very much neglected. Towards the end of the year some few parcels were pressed for sale and realized 32/6. It is remarkable that the spot values were not more affected by the prices made for the 1914 pack, because quite early in the year, namely, February and April, sales were being made at about 35/- c. i. f. In June buyers were paying 36/9, and a good deal more business would have been done at this price if it had not been for the fact that packers were very closely sold up, and in order to protect their small possible balances they raised their ideas of price to the region of 38/-, and buyers would not then follow the market to this extent, but later in the year 40/- was paid for such limited quantities as could be bought direct from the canners. This does not, however,

alter the fact that a limited quantity can still be bought at 36/9 to 37/- c. i. f. from second hand sellers.

1-lb. talls. Sales were made in January at 26/- ex wharf. In May 28/6 and 29/- were paid. Stocks at this point were practically exhausted. The spot market did not seem to be affected by the prices which were demanded and paid for the 1914 pack. As early as February business was done at 33/9 c. i. f., and after that month no sales are reported at less than 34/6, and although this would seem to be a tempting price for the packers, yet it was not high enough to secure as many goods as the market was willing to take.

½-lb. flats. From 36/6 the prices ruling in December, 1913, the value gradually advanced to 42/- in April, 44/- in May, 44/6 in July, and 46/6 in September. From this point the market weakened, and there were offers of spot goods at from 43/6 to 44/6 without eliciting much response.

The 1914 pack found ready buyers early in the year at from 41/6 to 43/-. In June 44/6 was paid and the price remained almost stationary from then until October, when business was done at 45/-. From that date there was a weakening, and at the time of writing offers of goods on the way are reported at from 42/- to 43/-.

Red Springs.—A few parcels of selected quality were well received, and realized from 22/- to 25/- for 1-lb. flats and from 26/- to 41/- for ½-lb. flats. There would be a better sale for these goods if packers took greater care in the selection of the fish. Buyers are always nervous of finding a variety of color in the fish, and this renders the sale of the goods on description very difficult.

Cohos have not been in much demand, but sales of ½-lb. flats have been made on the spot at from 20/- to 22/6, and forward sales of the 1914 pack have been reported at from 26/- to 30/-. It is not easy to convey a correct impression of the demand for this grade of fish by mere quotation of prices. The quality varies so much that some parcels can hardly be classed in the same group with others, although they are both described as Cohos. As a matter of fact, indifferent Coho Salmon is not valued by the buyers at much more than Pinks.

Chums are of no interest at all so far as domestic consumption is concerned.

British Columbia Pinks.—It is hardly possible to give any satisfactory indication of the value of British Columbia Pinks under that general classification. The value depends entirely upon the quality, and there seems to be no satisfactory way of handling the goods except by actual selection of parcels. They cannot satisfactorily be sold on description. The spot value of talls at time of writing is from 14/- to 16/-, and ½-lb. flats from 16/- to 22/-.

Puget Sound Sockeye.—1-lb. flats. In January 30/6 ex quay was made for goods then on the way. From this the price rose to 34/- in May, at which it remained until August. After August there was hardly any market, with the result that 32/- was accepted about the end of November. In the meantime the packers had given no encouragement whatever to buyers of the 1914 pack, although 35/6 was offered and accepted for small quantities in the spring. This price was not high enough to attract sellers later on in the year, because the domestic demands in America rendered Puget Sound packers entirely independent of this market, except on the basis of a price which was from 2/- to 3/- higher than any buyers were willing to pay.

1-lb. talls. At the commencement of the year there was a good deal of doubt as to whether the heavy quantities of the 1913 pack which had been bought for this market would find ready consumers. This doubt was largely because the market had been so absolutely bare of fine talls for such a long time that this shape of tin had become associated in the minds of grocers and consumers entirely with the cheaper grades of salmon. In some districts it has been found possible to revive the demand for fine talls, but in other districts the effort has been unsuccessful, and generally speaking the trade has found it fairly difficult to get Puget Sound Sockeyes into consumption.

The market might be described as patchy and irregular right through the year. At the commencement of the year the idea of value for unshipped portions of the 1913 pack was 26/3 c. i. f., and business was actually done at this price for extended shipment, but goods in store or near at hand were being sold in small quantities at 25/6 store, or 25/- c. i. f. In February 26/- quay was made, but in March 25/6 was against accepted. From March to June the price

varied from 26/6 to 27/6, according to quantities and quality. From June to September the price varied from 27/- to 28/-, with the exception of the first week in August, when in consequence of the war, the market was excited, and 31/- was paid. After that the trade was very dull, 26/- being accepted in some instances, sellers' ideas generally being in the neighborhood of 27/-. The fact that the Puget Sound packers demanded about 32/- for 1914 pack has not so far produced any appreciable effect upon the English spot market, but it is difficult to understand how a trade in this shape can be continued unless the English market gets nearer to the values being obtained in America.

½-lb. flats. The prices demanded for the 1914 pack were so high as to make business practically impossible, and the importations of 1913 pack were not on a sufficiently large scale to make spot business to any extent worth recording.

General.—The following is a list of the imports from all sources into the United Kingdom from the year 1906:

1906 about.....	1,233,000 cases
1907 about.....	501,500 cases
1908 about.....	677,400 cases
1909 about.....	823,300 cases
1910 about.....	1,428,000 cases
1911 about.....	850,000 cases
1912 about.....	772,000 cases
1913 about.....	1,271,000 cases
1914 about.....	2,176,096 cases

From the above it will be noticed that the imports during 1914 were 699,000 cases in excess of the next largest quantity during the above period. The stocks at the commencement of 1914 may be estimated at about 300,000 cases, and we anticipate it will be found that on December 31st, they will not exceed 700,000 cases. This would make the actual consumption for the year 1914 approximately 1,700,000 cases.

It is not within the province of this review to attempt to prophesy as to the future, but bearing in mind that deliveries from public warehouses have continued to be very good right up to the end of the year, and that Canned Salmon is still cheap as compared with other articles of food, we wish to point out that the Sockeye pack of British Columbia Salmon in 1914 amounted to 563,696 cases, and the Pinks 220,340 cases. These are the two grades which interest our market, and they amount together to 756,996 cases. These are all sold with the exception of about 75,000 cases Sockeyes, and 33,000 cases Pinks, and a very considerable proportion of the goods purchased for the United Kingdom have already arrived and are included in our stocks. We therefore estimate that the provision for 1915, including stocks and goods purchased, but not yet received, will amount to about 700,000 less than the actual consumption of 1914.

DISTANCES TO THE VARIOUS FISHING CENTERS OF ALASKA.

By the Inside Passage.

	Nautical Miles
Seattle to—	
Victoria, B. C.....	72
Vancouver, B. C.....	128
Seymour Narrows, B. C.....	212
Prince Rupert, B. C.....	583
Boundary line between British Columbia and Alaska	623
Ketchikan, Alaska	661
Wrangell	750
Wrangell Narrows	766
Petersburg	776
Juneau	900
Sitka	876
Haines	986
Skagway	1,000
Yakutat	1,303
Katalla	1,423
Orca	1,476
Cordova	1,479
Valdez	1,559
Seward	1,705
Pt. Graham	1,842
Seldovia	1,858

On the Ocean.

San Francisco to Unalaska	2,086
San Francisco to Nome.....	2,731
San Francisco to St. Michael.....	2,846
Seattle to Cape Flattery, Wash....	126
Seattle to Unimak Pass	1,674
Seattle to Nome.....	2,309
Seattle to St. Michael.....	2,361

Local Distances in the Ketchikan District.

Ketchikan to—	Miles
Boca de Quadra	40
Howkan	80
Hunters Bay	75
Kasaan	32
Karta Bay	40
Klawack	140
Loring	22
Metlakahtla	16
Tyee, Admiralty Island	190
Shakan	121
Skowl Arm	32
Sunny Point	30
Sulzer	100
Sulzer, by portage.....	45
Yes Bay cannery.....	40
Yes Bay, U. S. Fisheries Station.....	45

NET WEIGHTS OF CANNED FISH.

The following are the minimum weights of contents, including brine and oil, suggested as proper to be printed upon labels to comply with various state laws:

Canned Salmon—	No.	Lbs.	Ozs.
Flat cans	½	0	7½
Flat cans	1	0	15
Oval cans	½	0	7½
Oval cans	1	0	15
Tall Cans	1	0	15
Nominals	2		
Clam chowder	3	2	1
Shrimp—			
Dry	1	0	4
Dry	1½	0	8½
Wet	1	0	4
Wet	1½	0	8½
Tuna—			
Flat cans	½	0	7
Flat Cans	1	0	13

As a matter of fact, while the labels bear the above weights the contents of the can, especially salmon, are actually from one-half to one and one-half ounces heavier.

SHIPMENTS OF CANNED SALMON TO ATLANTIC PORTS BY WATER, JULY-DECEMBER, 1914.*

Month—	Puget Sound.					Total Cases
	New York Cases	Charleston Cases	Philadelphia Cases	Boston Cases	Portland, Me. Cases	
July	19,392	.....	.....	.....	.....	19,392
August	31,129	.....	.....	.....	.....	31,129
September	20,071	.....	.....	.....	.....	20,071
October	70,135	44,569	63,184	54,361	.....	232,249
November	191,654	44,625	36,656	7,905	.....	280,840
December	32,401	25,307	7,013	6,460	1,830	73,011
Total.....	364,782	114,501	106,853	68,726	1,830	656,692
		Portland and Astoria.				
August	32,557	.....	.....	.....	.....	32,557
September	30,707	.....	10,739	.....	.....	41,446
October	11,833	12,936	2,020	15,745	.....	42,534
November	12,668	.....	.....	.....	.....	12,668
December	3,989	4,731	784	5,619	.....	15,123
Total.....	91,754	17,667	13,543	21,364	.....	144,328
		San Francisco.				
July .....	.....	.....	.....	.....	.....	31,041
August .....	.....	.....	.....	.....	.....	14,326
September .....	.....	.....	.....	.....	.....	167,318
October .....	.....	.....	.....	.....	.....	312,822
November .....	.....	.....	.....	.....	.....	183,256
December .....	.....	.....	.....	.....	.....	2,574
Total.....	.....	.....	.....	.....	.....	711,337
Grand total.....	.....	.....	.....	.....	.....	1,512,357

* Data includes only shipments made since the Panama Canal has been opened to traffic.

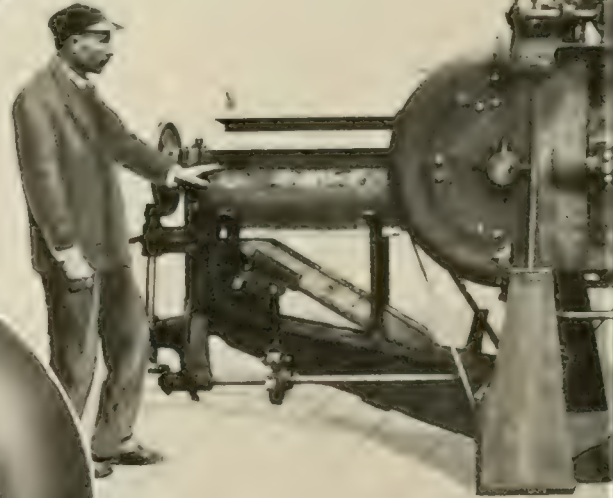
THE LA IN THE SANI



Hand Butchering as practiced prior to the invention of the "Iron Chink."



Hand Sliming—heretofore necessary even with the use of the "Iron Chink."

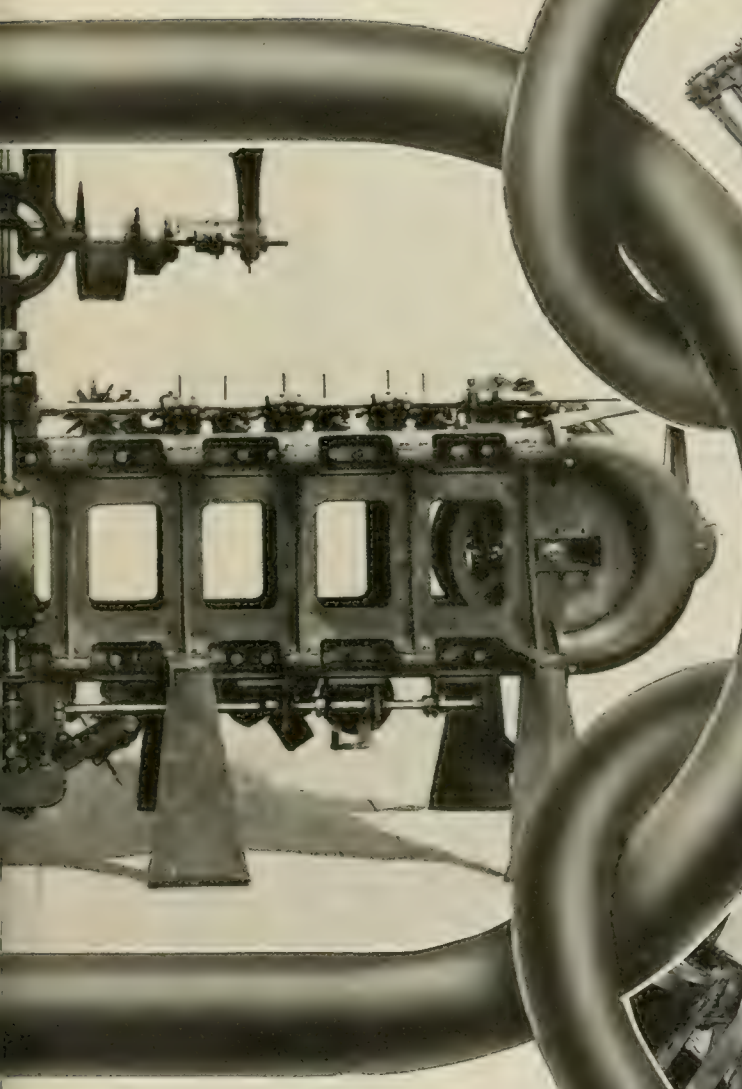


1916 MODEL

Eliminates all hand butchery and sliming. Will enable you to dispense with your entire sliming crew.

Smith Cannery Mach

ST LINK TARY CHAIN



The
'Iron Chink'
as universally
used today in the
salmon canning industry.



The first model of the
automatic butchering
machine,
invented in
1904.

"IRON CHINK"

Cleans and dresses automati-
cally 3,600 fish per hour. Saves
about 12 men over the present model.

ines Co., Seattle, Wn.

THE LAST LINK IN THE SANITARY CHAIN

Hand Butchering as practiced prior to the invention of the "Iron Chink."

Hand Sliming—heretofore necessary even with the use of the "Iron Chink."

The 'Iron Chink' as universally used today in the salmon canning industry.

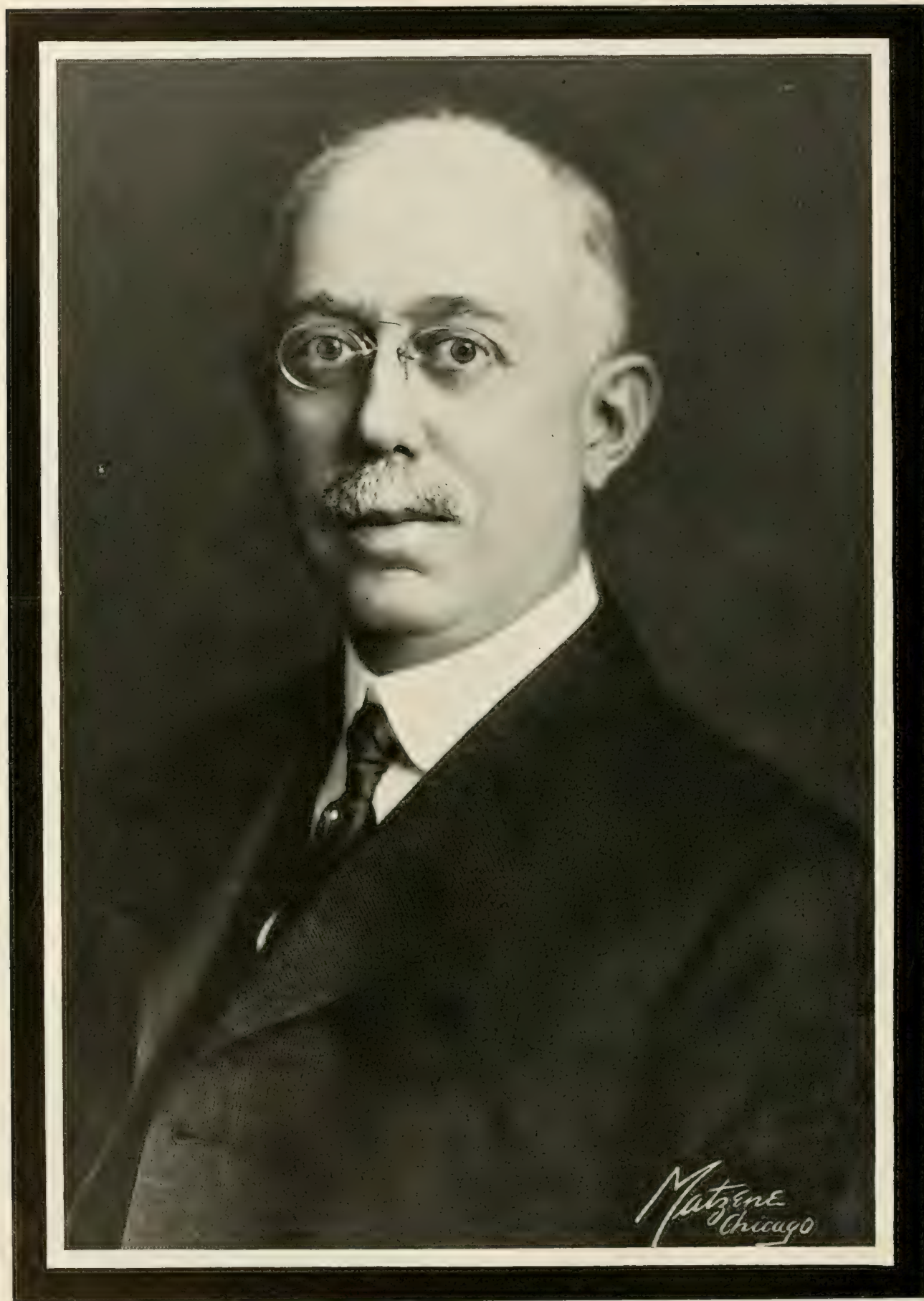
The first model of the automatic butchering machine, invented in 1904.

1916 MODEL "IRON CHINK"

Eliminates all hand butchery and sliming. Will enable you to dispense with your entire sliming crew.

Cleans and dresses automatically 3,600 fish per hour. Saves about 12 men over the present model.

Smith Cannery Machines Co., Seattle, Wn.



Frank L. Deming—In Memoriam

It came with a distinct shock to the Pacific Coast when the news was flashed over the wires from Chicago, on January 19, that Frank L. Deming had just died in that city. In Bellingham bells were tolled and flags half-masted, while in Vancouver, Seattle, Portland, Astoria, San Francisco, Los Angeles, and other coast places where the canning of salmon and other food products is carried on, were heard expressions of the deepest regret over the untimely taking away of one of the most popular individuals connected with the industry. He was a man of lovable and kindly disposition, full of the sunshine of life and love for his family and friends, and any man who ever met him became his friend.

Mr. Deming was taken ill with la grippe on January 9. On the 15th he was removed to St. Joseph's hospital, Chicago, where he underwent an operation on the 14th. He rallied from the operation, which was considered at the time a complete success. Suddenly, however, he took a turn for the worse and died at about 1:45 p. m. on the 19th.

The deceased had apparently always enjoyed superb health, and his many friends and admirers believed he would live to as ripe an old age as his father, who died a few weeks ago at the age of eighty-eight.

Mr. Deming was born in St. Louis, Mo., May 2, 1858. He was the son of Charles and Harriet Deming. His mother's maiden name was Baker. He received his education in the public schools of St. Louis and was married in that city on May 29, 1879, to Pauline E. Gray, of St. Louis, who survives him, together with three children, Everett Gray, Helen Edna, and Margaret Wilton. Two brothers, E. B. Deming and A. W. Deming, both living in South Bellingham, also survive him.

He began his business career with the grocery commission firm of John S. Gibbs & Co., of St. Louis, remaining with them from 1878 to 1880. He gradually drifted into the brokerage business with his brother, E. B. Deming, and Wm. T. Gould, and formed the brokerage firm of Deming & Gould Co., of Chicago and St. Louis, of which company he was president at the time of his death. He had a genius for salesmanship and organization in a large measure, and it was through his efforts that the company has attained such a commanding position in the business world.

He first became directly identified with the salmon canning industry of the coast in 1889, when he acted as the special representative of Richard Onfroy, who was then organizing the Pacific Packing & Navigation Co. and the Pacific American Fisheries Co. He handled the negotiations for the purchase of the site of the Pacific American Fisheries plant at Fairhaven, which town later on became a part of Bellingham.

After the business career of the Pacific Packing & Navigation Co., and its subsidiary companies, had ended, E. B. Deming, a brother of Frank L. Deming,

purchased at the receiver's sale in 1904 the plant at Fairhaven for Deming & Gould Co., and it has since been operated as the Pacific American Fisheries, Frank L. Deming occupying the position of vice-president. The latter always took a deep interest in this plant and each summer, in company with his family and other interested Chicagoans, would spend considerable time on Puget Sound.

The cannery at South Bellingham is the largest in the world, and besides the cannery proper there are also connected with it large can-making, shipbuilding, fertilizer and machinery plants. The company has also established large canneries at Excursion Inlet, King Cove, and Port Moller, in Alaska, which are amongst the best equipped in the territory.

The Deming & Gould Co. handles all of the immense pack of Canned Salmon put up by the Pacific American Fisheries, and also markets the packs of a number of other important canneries, thus making it one of the most important and influential factors in the industry.

Mr. Deming was also vice-president of the Gardner-Barada Chemical Co., of Chicago; a director of the Central California Canneries, San Francisco, and the Hotchkiss Timber Co., of the same city; president of the National Association of Canned Goods and Dried Fruit Brokers, and a member of the Chicago Association of Commerce. He was a member of the executive committee of the National Canners' Association, and was one of its most active and progressive members.

Frank L. Deming was a Mason and Knight Templar, also a member of the Chicago Athletic Association, the Exmoor Country Club, of Highland Park, one of the North Shore suburbs of Chicago, where he resided.

Funeral services were held on the 24th, having been delayed to permit of the arrival of his brothers, E. B. and A. W. Deming, of Bellingham, Wash., who, when the news of the death reached them, were in southern California. The body was placed in a vault in Rose Hill cemetery and will later on be removed to the family burying ground in St. Louis.

The active pall-bearers were: Franc E. Gardner, of the Gardner-Barada Chemical Co., of Chicago; John Washburn, of the Continental-Commercial National Bank, Chicago; Henry Glidden, of Highland Park, Ill.; Joseph G. Cary, of the Deming & Gould Co., Chicago; H. E. MacConaughy, of the Deming & Gould Co., and C. M. Mitchell, of the Deming & Gould Co.

Among the honorary pall-bearers were: Charles E. Wilcox, of Sprague, Warner & Co., Chicago; Wm. T. Gould, of Los Angeles, Cal.; Wm. Kothe, of Kothe, Wells & Bauer, Indianapolis, Ind.; B. M. Fernald, of Fernald, Keene & True Co., West Poland, Me., and Wm. B. Dudley, of U. H. Dudley & Co., New York, New York.

5352

The Salmon Canning Industry of Siberia

To the salmon fishery interests of this coast the development of the latent salmon resources of Siberia have become of increasing importance as the years go by.

As yet the industry is virtually in its infancy so far as the canning of salmon is concerned, although the salting of salmon has been carried on for a number of years, and,



CANNERY OF S. GROOSHETSKY & CO.

despite the primitive methods followed, is at present of considerable importance.

The development of the fisheries has been greatly retarded by the Russians, who, while lacking practical knowledge of how best to prosecute the fisheries, and also lacking the capital necessary to finance them, yet are not willing to allow foreigners to exploit them. It is true that the Japanese have taken the lead in such development as has occurred, but this result has really been forced upon the Russians, owing to the proximity of the Japanese and the treaty rights they have had since 1905, which give them the same fishing rights along the coasts as the Russians. As usual in Russian territory, there are a number of vexatious and sometimes unnecessary laws, by-laws and local regulations which greatly hamper the development of the fisheries, especially if the holder of a concession be a Japanese, while the tenure of the concession—one year—absolutely precludes the holder, without a special understanding, from erecting other than temporary buildings, and installing no more machinery than can be conveniently carried away at the end of the fishing season.

The first cannery to be established in Siberia was about 1898, when the Kamchatkan Trading Co. imported a complete plant from San Francisco, which was first set up at Petropavlovsk and subsequently transferred to Ust-Kamchatka, at the mouth of the Kamchatka river. Practically nothing was ever done with this plant, and ultimately it came to a peaceful end through decay.

In 1907 two canneries were established in the estuary of the Amur river, near Nikolaiefski, but beyond getting out samples they were never operated.

In 1910 A. G. Denbigh built a modern cannery near the second site of the Kamchatkan Trading Co. That year the cannery produced only about 10,000 cases, but each year since he has added to and improved the plant until in 1913 the pack amounted to 60,000 cases. Early in 1914 the company installed a complete one-line plant of the Bliss sanitary can-making and can-packing machinery in this cannery.

NOTE.—Detailed figures of the Siberian pack of Canned Salmon for 1914, and preceding years, will be found in the statistical section.

In 1912 Mr. Denbigh built another cannery one and one-half miles away from the above plant. This cannery was first operated with German and Norwegian sanitary machinery, but in 1914 a two-line sanitary Bliss can-packing plant was installed. In 1914 the two canneries together packed 73,000 cases. The one can-making plant makes all the cans needed at the two canneries.

Mr. Denbigh also operates a hand cannery at Com-pocowa, on the west side of the Kamchatka Peninsula.

In 1912 a Tokyo company—Ichigumi & Company—put up two canneries near the Ozernaya river in Kamchatka, while a Japanese from Niigata also put up a small plant in the same vicinity. That year the two companies packed about 13,500 cases of salmon all told. These were cheaply built plants and worked with hand-power machinery and small vertical retorts.

The same year Ichigumi & Co. put up another hand-power cannery and Tsutsumi & Co., of Hakodate, built two others of the same type, near the Kamchatka river, on the east coast.

In 1913 Tsutsumi & Co. built a modern sanitary cannery at Ozernaya, and installed a complete line of the American Can Co.'s can-making and can-packing machinery.

In 1913 Ichigumi & Co. put up two hand canneries near the Kamchatka river, having succeeded to the concessions formerly held here by Tsutsumi & Co. In 1914 they built a modern plant and installed one line of Bliss sanitary can-making and can-packing machinery.

For some years the St. Petersburg firm of S. Grooshetsky & Co., operating as the Pacific Ocean Sea Industry Association, has been engaged in the freezing of salmon and in the preparation of salmon caviar. In 1914 this company



CANNERY CREW WALKING FROM SHIP TO SHORE OVER THE ICE.

erected a cannery near Ozernaya and installed in it a full line of the American Can Company's sanitary can-making and can-packing machinery. The buildings are of iron and are on the south bank of the river, while the fishing station is on the opposite bank, the salmon being brought across by means of an aerial tramway stretched from the station across the river and to the cannery itself.

At the present time there are five plants operated with modern machinery, viz.: S. Grooshetsky & Co., Tsutsumi & Co., A. G. Denbigh, two; and Ichigumi & Co. In addition there were in 1914 12 Japanese hand canneries operated on



CANNERY OF TSUTSUMI & COMPANY.



AERIAL TRAMWAY FOR CONVEYING SALMON FROM FISHING BEACH TO CANNERY.

the east coast of the Kamchatka Peninsula, while on the east coast of the Peninsula two were operated.

In 1914, the canneries had all made preparations for a much larger pack than was made in 1913, but the season was a very disappointing one. The run of Reds was a very short one, and several streams which previously had had large runs showed but few fish in 1914. The best run was in the Kamchatka river.

The canneries expected to pack but few Dogs, or "Pinks" as they are called in Siberia, for which there is a very limited demand in Russia, but the sudden breaking out of the war caused a demand for them from the Russian government. However, the greater part of the "Pink" run was over before the news of the breaking out of war reached the canneries, and thus they were unable to put up but a

The preparation of salmon caviar from the eggs of the salmon is rapidly assuming first rate importance in Siberia, due largely to the appearance on the coast of experienced caviar experts from the Volga river and Caspian sea. These men have introduced the most modern methods of preparing the product with the result that today it fetches from three to four times as much as before their advent.

By far the largest part of the catch of salmon in Siberia



STEAMER USED IN COLLECTING SALMON EGGS.

is pickled and dry-salted, salteries being scattered all along the coast and to a considerable distance up the rivers. In the rivers all fishing concessions are restricted to Russians only and must be worked with Russian subjects. Only haul seines are allowed at these concessions. As stated previously the coast concessions may be held by either Russians or Japanese and there is no restriction as to the nationality of the labor used. Most of the salmon taken at the river concessions are marketed locally, while by far the greater part of those prepared at the coast concessions are exported to Japan, and are prepared mainly by Japanese.

Only rough shacks are used as the concessionaries have the very short tenure of only one year, and as a result nearly everything movable is taken back to Japan by the concessionary.

An odd feature in connection with the operation of these plants is that the salt to be used in curing the fish is usually dumped loose onto some level spot, with absolutely no covering over it, and exposed to the elements, which must cause a considerable loss through melting each season.



HOTEL DE TONGAS (RUSSIAN FOR BOAT). Temporary Quarters of American Experts While Grooshet-sky's Cannery Was Building.

small part of what they could have packed had the war broken out a few weeks earlier. Nearly all packed were sold for \$5.50 per case, delivered at Vladivostock.

The pack in 1914, was as follows:

Reds	85,000 cases.
Silvers	22,500 cases.
"Pinks" or dogs.....	27,000 cases.
Humpbacks	2,000 cases.

Total136,500 cases.



JAPANESE CANNERY WORKPEOPLE.



A SIBERIAN SALMIN SALTERY. The White Heaps in the Center and Right Are Salt.

GOLD SEAL Crack Proof Boots SEWARD SOLE

THE BEST and STRONGEST MANUFACTURED TO MEET THE DEMAND OF THE

FISHING TRADE

ALL GENUINE
GOLD SEAL
CRACK PROOF
BOOTS
BEAR THIS
HEEL IMPRINT
AND OUR
GOLD SEAL
TRADE MARK
ON LEG



Stout's Patent Snagproof Boots

Stout's Patent 'Longshore Boots



Gold Seal and Badger Brands

OILED CLOTHING

For Sale by All Reliable Dealers

We Also Manufacture a Complete Line of
BELTING - PACKING - HOSE

NOTE

"Knee Patch"

"Reinforced Inside Knee Band"

"Reinforced Seward Sole"

GOODYEAR RUBBER CO.

SAN FRANCISCO, CAL.

PORTLAND, ORE.

587-589 Market St.

61-67 Fourth St.

R. H. PEASE, President

C. F. RUNYON, Secretary

J. A. SHEPARD, Vice-President

R. H. PEASE, Jr., Treasurer

Land Scrip; How and By Whom Used

By W. E. MOSES

Denver, Colorado

Government land scrip is almost as old as the American constitution, yet I venture to say not ten per cent of the readers of this journal know the value of land scrip, or the extent of its purchasing power.

Various issues of scrip have been granted to the several Indian tribes of the nation, principal of which is the tribe of Chippewa half-breed Indians, to whom scrip aggregating 93,770 acres issued.

To the Red Lake and Pembina Chippewa half-breeds there issued 74,240 acres.

To the Sioux half-breed Indians, under the act of July 14, 1854, there issued 307,200 acres of scrip.

Scrip issued by the commissioner of the general land office, pursuant to decrees of the United States Supreme Court, under the act of June 22, 1860, and supplemental legislation, aggregating 606,512 acres.

Scrip issued in satisfaction of the claim of Israel Dodge and others, 15,870 acres, and in satisfaction of the claim of Thomas B. Valentine, under the act of April 5, 1872, 13,200 acres. In satisfaction of the claim of Samuel Ware, 640 acres issued, and in satisfaction of the claim of the heirs of Joseph Gerard, 1,920 acres.

Scrip issued under the fourteenth article of treaty with the Wyandotte Indians amounting to 22,400 acres.

Many other scrips have from time to time issued in satisfaction of claims against the general government for lands lost or bounties earned by soldiers in the various wars. The principal scrips on the market today being as follows:

Soldiers' additional homestead scrip.
Sioux half-breed scrip.

Forest reserve scrip in its various forms.

Wyandotte scrip.

Valentine scrip.

Porterfield scrip.

Ware scrip.

McKee scrip.

Alabama scrip.

Gerard scrip.

Lieu selection rights.

Military bounty land warrants.

Soldiers' additional homestead scrip is issued in various forms and for services rendered during the war of the Rebellion. This scrip is perhaps as well known as any scrip on the market and will successfully pass title to surveyed, non-mineral land subject to entry under the homestead or settlement laws. It may be located in Alaska upon unsurveyed lands. There is no means of estimating the exact number of acres of this scrip which have from time to time been located, but it is a safe prediction that the number of acres far exceed 1,500,000. There is a supply of this scrip still to be had and it is eagerly sought after by persons who are familiar with the scrip business. This scrip is assignable and patents issue in the name of the assignee.

Ware scrip, formerly known as New Madrid scrip, was issued in satisfaction of lands lost in the earthquake at

New Madrid, Mo., April 10, 1812. It is locatable upon any surveyed land in what was formerly known as Missouri Territory. It may be located anywhere within Arkansas, eastern Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, eastern New Mexico, North Dakota, South Dakota and Wyoming. This scrip is very desirable for acquiring title to land to be used as townsite purposes, as it is quick in action. This scrip is assignable.

Porterfield warrants or scrip was issued under the act of Congress approved April 11, 1860. It is a very desirable scrip and held in high esteem by the few people who are fortunate enough to own Porterfield warrants. Not a very large volume of this scrip is outstanding, and it is also assignable.

Wyandotte scrip was issued in satisfaction of land claims of the tribe of Wyandotte Indians in Kansas. There was issued 22,400 acres. This scrip is very clean and desirable. It may be located on unsurveyed or surveyed land. The supply is almost exhausted.

Gerard scrip.—“By the act of February 10, 1855, Reese H. P. Gerard, William Gerard and Rachel Blue (formerly Rachel Gerard), the only children and heirs of Joseph Gerard, a messenger of the United States to the Indians, who was killed in 1792, be, and they or their heirs are hereby permitted to enter, each one of them severally, or his or their heirs, one section of public lands, without the payment of any consideration for said three sections, being in full payment for the patriotic services of said Joseph Gerard, and in accordance with the spirit of the inducements authorized by President Washington to be held out to such as would consent to carry a message from Fort Washington (now Cincinnati) in 1792, to the hostile Indians of the then Northwestern Territory.” This issue of scrip is valuable and will pass title without unnecessary delay to surveyed public lands. Gerard scrip is assignable, patent issuing to assignee.

McKee scrip was authorized by the act of January 25, 1853. This scrip is very limited in its area. Only a few forty-acre certificates are now outstanding.

Lieu Selection Rights.—This character of scrip has from time to time been authorized by acts of Congress in satisfaction of initiated or vested rights by entrymen upon the public domain which were lost by reason of railroad land grants or otherwise. This scrip is very valuable and locatable within the states indicated by the particular act of Congress which authorized its issue.

Forest Reserve Scrip.—This scrip was first authorized by the act of March 3, 1891, and also the act of Congress approved June 4, 1897. This scrip was very popular from 1898 un-

til 1905, when it met its death at the hands of Congress on March 3, 1905.

Santa Fe Scrip.—This scrip was created under the act of March 3, 1905, and it superseded the act of June 4, 1897, which created forest reserve scrip. Several million acres of Santa Fe scrip has been located throughout the public land states during the last eight years, under the provisions of the act of Congress above referred to. On March 4, 1905, the “joker” was discovered which had been adroitly included in the law enacted on the previous day, viz.: the “killing off” of all small holders claiming under the act of June 4, 1897. The untimely demise was tragic, creating consternation throughout the length and breadth of the public land states. Santa Fe scrip is one of the best and safest on the market today.

Valentine Scrip.—This scrip was authorized by the act of April 5, 1872. There issued to Thomas H. Valentine 13,200 acres. There is a very interesting history in connection with that scrip, but space forbids reading its history into this article. Valentine scrip is one of the best on the market today. It will pass title to unsurveyed as well as surveyed lands, and is held in high regard by its owners. This scrip is assignable, patent issuing to assignee.

Sioux Half-Breed Scrip.—This scrip was issued to the Sioux Indians. It has been on the rocks of adversity for many years and has withstood perhaps as many discouraging adverse decisions as any scrip on the market today; however, the courts and decisions promulgated by the Department of the Interior have served to smooth out the rough ways, and today this scrip is regarded as a safe one to use. It may be located on unsurveyed as well as surveyed lands.

Canadian Scrip.—The Dominion government has been very gracious to their soldiers and issued scrip liberally to all veterans who participated in the war in South Africa and other wars. Scrip was also issued to the Canadian Indian half-breeds and is locatable in the Northwest provinces. Their laws are more liberal upon the subject of scrip than those enacted by Congress, in that all veterans who served in the Boer war receive scrip, whereas, not to exceed one in 10,000 American veterans are entitled to such rights. Canadian scrip may still be located in the Canadian Northwest.

Government land scrip has played a very prominent part in acquiring title to public lands during the last decade. It is used largely by corporations and townsite promoters. Large areas of scrip have been located throughout the public land states upon lands which were to be used for townsite purposes. Title for townsite purposes may be obtained, by use of scrip, within thirty or sixty days from the date of the scrip filing, thus enabling the promoter to plat and sell lots, build a town quickly, keeping pace with the spirit of rapid firing progression which prevails today.

Locating Cannery and Trap Sites in Alaska*

By A. H. BRADFORD

U. S. Deputy Surveyor for Alaska

Prior to the year 1908, the location, approval and patenting of land locations in Alaska, adjacent to the main fishing grounds, was not a difficult matter. Subsequent to that time the matter of locating new sites has each year become more difficult.

In 1908, by executive order, the President created extensive forest reservations in Southeast Alaska, which withdrew from entry nearly all the lands adjacent to the chief fishing grounds. This is known as the Tongass National Forest Reservation. While ordinarily permits are granted to cannery locators on this reservation on application to the Forestry Bureau at an annual rental of \$25.00 per site, the land so occupied and improved by the locator can not be patented under the existing laws.

Likewise the government has withdrawn by executive orders large tracts of land adjacent to the fishing grounds of Prince William Sound and Cook Inlet (East shore), in Central Alaska, under the name of the Chugach National Forest Reservation. A new reservation, very sweeping and arbitrary, was created by ex-President Taft on March 3, 1913, of all the islands west of Isanotski Straits (False Pass), as a fish, bird and game reserve. This is known as the Aleutian Islands Reservation. It is impossible to obtain a lease on any portion of this reservation since no provision was made for the same in the order withdrawing the lands. Also the vested rights of locators already on this reservation prior to its formation have not been provided for. When this matter is called to the attention of the proper authorities some provision will be made, undoubtedly, for these locators.

Areas Open to Location.

The lands, therefore, upon which cannery locators may locate in the present proven fishing regions of Alaska, where the locators may feel some assurance of eventually obtaining patent, are confined to the Alaska Peninsula as far East as the West shore of Cook Inlet and as far north as Bristol Bay, Kadiak Island, the Shumagin Islands, a large area at the southerly end of the Kenai Peninsula, embracing a few harbors south of Seldovia and Port Graham. The method of procedure in locating

*This article appeared in the 1914 Annual, but as the information contained in it is of much value to the fishing interests, it is published once more.

Some of our largest cities derive their titles through the use of land scrip, principal of which might be mentioned Chicago, Seattle, Omaha, Denver, Sioux City, Pueblo, Cripple Creek, Salt Lake City, San Diego and scores of other towns.

The only logical method today of acquiring title to government land is by use of valid land scrip. Forty years ago the homesteader and the ox

cannery sites on these unreserved areas is substantially as follows:

- (1) Application to the land office at Juneau; describing the tract to be entered, accompanied by sufficient scrip to cover the estimated acreage of the claim.
- (2) Beginning survey of location by a U. S. Deputy Surveyor within 90 days after filing application.
- (3) Patent application and proving up to be commenced 60 days after a notification from the Register of the Juneau Land Office, based upon approval of the survey by the Surveyor General.
- (4) Granting of patent by the Government, usually from two to ten years after first application.

The first application filed by the locator describing the tract to be entered must be accompanied by scrip, which is the rights of a soldier or sailor who fought in the civil war. This is known as a Soldier's Additional Homestead Claim. The locator, either individual, association or corporation, simply purchases the assigned rights of the old veteran and makes no direct payment of any kind, except a nominal filing fee, to the government. This scrip allows the locator as many claims as may be desired on lands open to entry. Thus a locator with 40 acres of S. A. Homestead scrip may take up 4 ten acre claims, or 5 eight acre claims, or one claim of forty acres or any fraction thereof as long as the locating power of the scrip as to acreage is not exceeded. Claims located under the Soldier's Additional Homestead Act, which is the Act of May 14, 1898, as amended March 3, 1903, need have no improvements at time of survey. The government provides for the survey of these claims by U. S. deputy surveyors at the expense of the claimants.

The Government also provides for the location of lands in Alaska upon unreserved areas under the Trade and Manufacturing Acts of March 3, 1891, and May 14, 1898, where an actual trade or productive industry is being carried on. Under this Act a maximum area of 160 acres may be taken in one claim. Payment is made direct to the Government at the rate of \$2.50 an acre. The actual practice has been, however, that the Government is adversely inclined to large acreages under this Act unless extensive improvements have been made by the claimants covering nearly the entire tract of land. Only one claim of this kind is

team were inseparable; today the users of land scrip—the investor, speculator, promoter, lumberman, stockman and the ranchman—ride in automobiles. "Time is the essence of the contract" these days.

Scrip may be located by any person, male or female, without reference to whether they own much, little or no land. There is no limit to the number of acres of scrip one may locate.

allowed any individual or company.

Application for lands under the Trade and Manufacturing Acts is made the same as in a Soldier's Additional Homestead Claim. No scrip is necessary. The locator has to file a sworn affidavit to accompany the application to the effect that he is conducting an actual trade or manufacture, and specifying the value and extent of the improvements on the ground. As in the other claim the survey is made at his expense by a U. S. deputy surveyor.

Traps and Trap Sites.

Under the existing fish trap laws applicable to Alaska, a fish trap may be operated anywhere along the coast of Alaska, 300 yards from the mouth of any salmon stream, and along the shores of all rivers—excepting those emptying into Cook Inlet, the streams on Afognak Island, and in Wood river—where the same are at least 500 feet wide.

A clear water distance of 600 yards laterally and 100 yards endwise must be maintained between all traps. At the present time there is no law regulating the length of leads, the maximum depth of water in which the pot may be driven, or the use or occupancy of the trap sites.

It has been decided by the highest courts within the past year that title to the upland conveys no title to the trap owners who may be in front. The tide lands of Alaska are not of sufficient commercial importance as yet to enter into this controversy. At the present time there is no tide land law applicable to Alaska affecting the upland owners or the trap site locators.

At the present time the canner who is on the ground first with piles and a driver can assert his right to any unoccupied trap site regardless of who fished it the previous season. This, however, is the exception rather than the rule. As a general proposition the cannery respect the rights of rivals in the same fishing region, and a trap location once recognized as that of a certain individual or company is rarely jumped so long as the original locator cares to maintain a trap on it.

More definite legislation affecting the present uncertainty of the fish trap laws of Alaska is expected to become operative within a short time. A bill now before Congress, known as the "Jones Bill," introduced in the Senate by Senator Jones of this state, is destined, if passed in its present form, to definitely fix the size and ownership of the trap locations.

No residence or other compliance with the settlement laws is required.

Title to unsurveyed land can be obtained in no other manner than by the use of scrip, except by actual settlement and continuous residence.

No residence is required in making scrip locations, without reference to whether the land is surveyed or unsurveyed.

UNSOLICITED



SPECIAL SALMON BRANDS
White Crest, Sockeye
Red Head, Sockeye
Emerald, Coho
Crimson, Coho
Reverend, Pink
Sassy, South, Pink
Resolute, Chum
Cocoa Patch, Chum



BOTH PHONES 5

Anacortes, Washington, July 28, 1914.

E. W. Bliss Co.,
Brooklyn, N. Y.

Gentlemen:

We have been operating the can factory machinery purchased from you, and wish to say that the results obtained have been a first class can, and when we consider the fact that the entire plant was new and that the operators were also new to the machinery, will say that the results were entirely satisfactory.

During the latter part of the can making season we were running the body maker and line at 130 per minute, and the automatic die press at 150 per minute, thus not only turning out 130 cans per minute but securing a surplus of ends for the canning season at the same time. We made some days up to 2,000 cases of 48 1½ cans each.

Should you desire to refer to us at any time, we shall be pleased to express these sentiments to any legitimate inquirer, and at any time we are operating the plant, shall be pleased to have prospective purchasers visit our plant, as they would be better able to get a definite idea of the action of your machinery by an actual inspection on the ground.

While operating the body maker it was a frequent feat of the operator to set a nickel up on edge on the machine, leaving it stand there until he saw fit to rescue it from some more than usually greedy looking observer, while the machine was running at 130 per minute.

We are satisfied with and have accepted the can factory in toto. Feeling that you are deserving of this letter, we have written it as a mark of our appreciation of the value of your machines and the courtesy with which you have treated us.

Very respectfully yours,
COAST FISH COMPANY

W. A. Lowman
President

L:E.



We build complete lines of machines for the manufacture of packers' cans and sanitary cans.

The experience gained in over 55 years devoted to designing and building this class of machinery is embodied in

BLISS AUTOMATIC SANITARY-CAN MACHINERY

Bliss Sanitary Can Machinery has for years been in operation in can factories. It has been tried and tested and has made good in actual operation.

Bliss Sanitary Can Machinery is machinery plus experience. Every detail is the result of practical experience.

Write us, stating clearly your exact requirements.

Catalog 18-P on request.

RESULTS—That's the proof we offer.

"BUILDERS OF THE COMPLETE LINE"

Visit Our Exhibit at the Panama-Pacific International Exposition, Machinery Palace, Block 16.

E. W. BLISS CO., 21 John St., Brooklyn, N. Y., U. S. A.

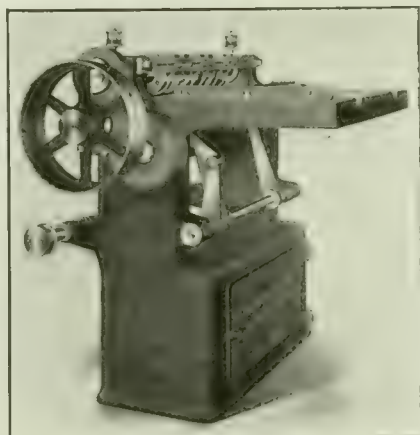
Seattle Office—Atlantic and Utah Streets

Representative for Chicago and Vicinity.

Stiles-Morse Co., 565 West Washington St., Chicago, Ill.

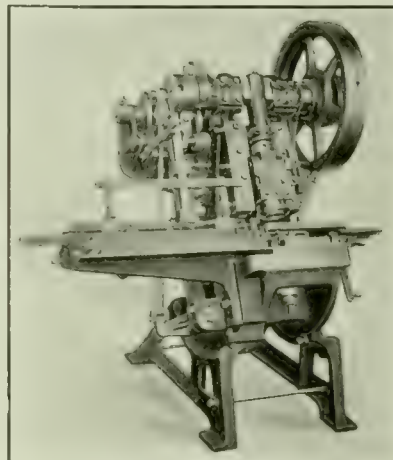
BLISS AUTOMATIC SANITARY-CAN MACHINERY

Every Detail the Result of Practical Experience

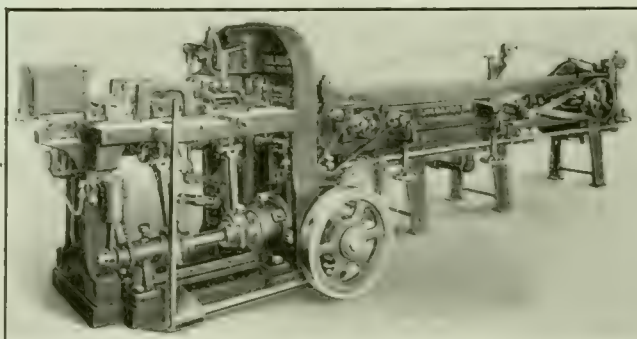


BLISS NO. 225 GANG SLITTER. With this machine every strip is good. **YOU HAVE NO LOSS.** Consider this and its effect as regards subsequent operations. It has double edge cutters giving twice the wear. End thrust bearings eliminating all lateral motion of cutter shafts. Self contained grinder.

Its heavy construction, extra large shafts (3 in. in diameter) set in solid, permanently adjusted bearings and perfect workmanship throughout give you a machine that you can depend on for absolutely accurate work—**dead true slitting.** That's exactly what we mean—**DEAD TRUE SLITTING.** That's exactly what we guarantee—**DEAD TRUE SLITTING.**



BLISS NO. 119 1/2-K AUTOMATIC HIGH SPEED TOP AND BOTTOM PRESS WITH STRIP FEEDS. In this press the slit strips are placed in a magazine from where they are automatically fed and carried through the press. These presses are sometimes arranged with positive top and bottom knockouts. They are readily changed over from one size die to another. All adjustments are open and simple to make. Capacity 60,000 to 100,000 ends a day. This type of press is sometimes arranged with edge curling machine for ends, attached to and driven direct by the machine.



BLISS NO. 22-N LOCK-AND-LAP SEAM BODY MAKER.—A rigidly constructed machine for economically making lock-and-lap seam can bodies, 2 1/2 to 4 1/4 inches diameter by 2 to 5 1/4 inches in height. Every movement from a crank or eccentric giving high speed without vibration and with least possible wear. Automatic blank feed under instant control. Precision feed (patented) used on blanks while passing through machine insures blanks being delivered absolutely square and to an absolute position in the notching attachment and on the forming horn. This is most important and an exclusive feature found only in our machines. Crank edger—its strength and simplicity a feature of the machine. The machine is arranged with jaw clutch, giving instant control. Soldering machine is continuous running. All adjustments are both simple and convenient. Speed 125 a minute.

“BUILDERS OF THE COMPLETE LINE”

Visit Our Exhibit at the Panama-Pacific International Exposition, Machinery Palace, Block 16.

E. W. BLISS CO., 21 John St., Brooklyn, N. Y., U. S. A.

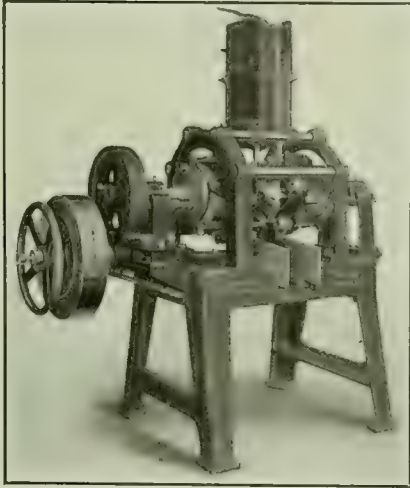
Seattle Office—Atlantic and Utah Streets

Representative for Chicago and Vicinity.

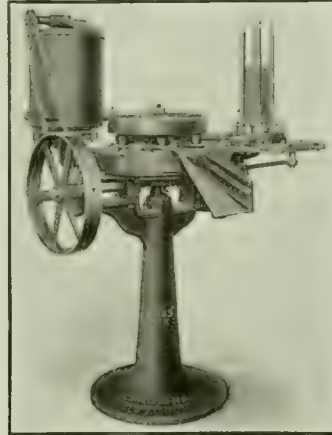
Stiles-Morse Co., 565 West Washington St., Chicago, Ill.

BLISS AUTOMATIC SANITARY-CAN MACHINERY

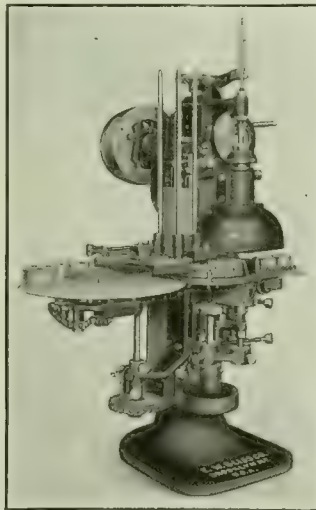
Every Detail the Result of Practical Experience



BLISS NO. 15-K AUTOMATIC CAN FLANGER. An entirely automatic machine of the four chuck type, continuous in operation and positive in action. It produces a perfect and uniform flange. The movement of the chucks is comparatively slow and the bodies are flanged without danger of cracking the tin. It handles can bodies from 2 to 6 $\frac{5}{8}$ inches in diameter by 2 to 7 inches in height, at the rate of 100 to 150 a minute. The friction clutch with which it is provided gives instant control.



BLISS COMPOUND APPLYING MACHINE NO. 1-K. Simplicity is the basis of this machine. No valves to leak or clog. No compressor required. Speed is a big feature. We build this machine in two sizes. The No. 1 shown will handle work from 2 to 5 inches extreme diameter of flange. When fitted with automatic cover feed as shown, it is only necessary to keep the cover magazine filled, the machine being entirely automatic and operating at a speed of 120 a minute.



BLISS AUTOMATIC ROUND CAN CLINCHER NO. 1-K. Fully automatic and of strong, rigid and compact construction, the machine clinches the covers on cans, the cans standing still during the clinching. It handles cans from 2 $\frac{1}{2}$ to 4 $\frac{1}{4}$ inches in diameter by 2 to 5 inches in height. Covers are clinched loosely around flange allowing ample space for exhausting. Speed 75 a minute.

Covers are fed automatically from the cover magazine. Drive is by friction clutch, allowing of independent operation and instant control.

“BUILDERS OF THE COMPLETE LINE”

Visit Our Exhibit at the Panama-Pacific International Exposition, Machinery Palace, Block 16.

E. W. BLISS CO., 21 John St., Brooklyn, N. Y., U. S. A.

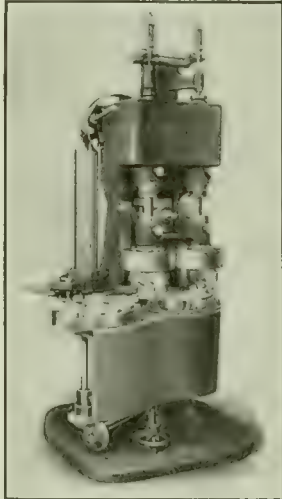
Seattle Office—Atlantic and Utah Streets

Representative for Chicago and Vicinity.

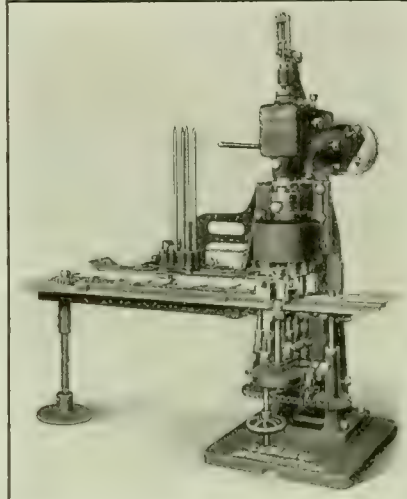
Stiles-Morse Co., 565 West Washington St., Chicago, Ill.

BLISS AUTOMATIC SANITARY-CAN MACHINERY

Every Detail the Result of Practical Experience



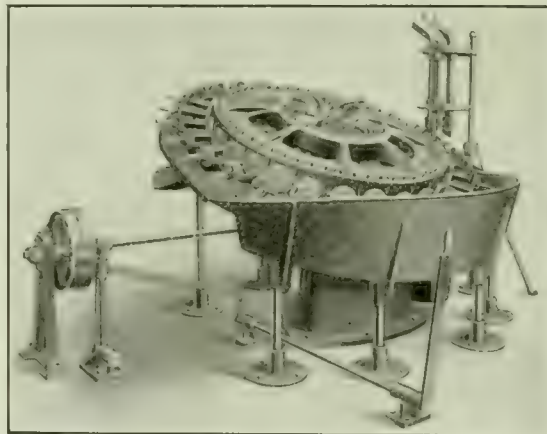
BLISS SANITARY CAN DOUBLE SEAMER NO. 71-K with automatic turrets and end feed. Cans stand still during double seaming. Friction clutch drive giving instant control. Every bearing an anti-friction bearing. Speed 75 a minute.



BLISS SANITARY CAN DOUBLE-SEAMER NO. 31-K. A fully automatic machine of compact and rigid construction. Cans stand still during double-seaming. In actual operation, under severe working conditions it has proved up with a lasting efficiency that is well worth your investigation.

Our automatic turret mechanism is entirely independent of the seaming mechanism. Our machine may be taken apart and reassembled regardless of position of seaming head and turret and without attention to timing parts.

Capacity $2\frac{1}{2}$ to $4\frac{1}{2}$ inches in diameter by 2 to $5\frac{1}{4}$ inches in height. Speed 35 to 45 a minute.



BLISS NO. 14-K AUTOMATIC ROUND CAN TESTER. A safe and positive can test is what you require and get in the "Bliss" No. 14-K Automatic Round Can Tester.

The revolving carrier provided with 28 pockets is driven by a worm wheel, which imparts to the carrier an even and uniform motion, reducing agitation of water in the testing tank. Leakers are readily detected and removed. The machine is adapted for standard round cans up to and including No. 3 size. We build these machines in three sizes.

"BUILDERS OF THE COMPLETE LINE"

Visit Our Exhibit at the Panama-Pacific International Exposition, Machinery Palace, Block 16.

E. W. BLISS CO., 21 John St., Brooklyn, N. Y., U. S. A.

Seattle Office—Atlantic and Utah Streets

Representative for Chicago and Vicinity.

Stiles-Morse Co., 565 West Washington St., Chicago, Ill.

Fish Coming Into Its Own

The diminishing supply of land animals capable of supplying human food, and the consequent increase in the cost of same, in many instances reaching such an altitude as to preclude their regular use by people of moderate or poor circumstances, has caused the attention of the economist and scientist to be directed to fish as an excellent substitute, one that is also cheaper, more nutritious and wholesome than meat.

As ordinarily employed the term fish includes, besides the fish proper, many other water animals, as oysters, clams, and other mollusks; lobsters, crawfish, crabs and shrimps, and turtle and terrapin.

But few people have any conception of the present vast extent of our salt and fresh water fisheries, and yet, should the demand warrant it, this output could be doubled and trebled. Complete and accurate figures of the annual catch of the commercial fishermen of the United States are not available, but the best estimate, based upon accurate data for certain sections, and estimates from the best sources possible covering the other regions, is to the effect that about 2,400,000,000 pounds of fishery products was taken from our waters last year. This enormous catch had a value to the fishermen of approximately \$70,000,000. The canning, salting, and otherwise preserving of a considerable part of this catch gave employment to an army of additional employees and added from 30 to 50 per cent to the original value of the catch.

The population of the United States at the last census was 91,972,266, and if this enormous catch were to be equally divided each man, woman and child in the country would have consumed approximately 26.1 pounds of fish in 1914. This is a very small percentage, being only about one-half pound per week, and if it were to be trebled it would mean a vast increase in the number of fishermen employed and in the amount of business done by the dealers in fish and the manufacturers of fishing gear, vessels, boats, etc., thus giving employment to more than twice the number now employed.

Unfortunately, in the vast majority of homes fish is rarely ever seen except on one day in the week. The reason for this, in these days of quick and sanitary transportation of food products, is largely due to lack of knowledge of the cheapness of fish as compared with meat, the fact that in nutritive qualities certain kinds of fish are superior to meat and other food products, while in general wholesomeness it is the equal, if not superior of other food products.

In order to bring home to our people the many advantages of a more liberal fish diet the federal and several city governments, and various private associations, companies and individuals during 1914 did yeoman publicity work. In this line the palm should unquestionably be accorded to the U. S. Bureau of Fisheries for its economic circular No. 11, entitled "Canned Salmon Cheaper than Meats, and Why. Including Fifty Tested Recipes." A very large edition of this 11-page circular was printed and distributed throughout the world, and it has had a remarkably beneficial effect upon the sale of Canned Salmon, especially abroad, where a government guarantee of this character is appreciated at its true value.

The following extract from this circular shows what the bureau thinks of Canned Salmon as a food product:

"The cheapest food is that which supplies nutriment at the lowest cost. One pound of canned Red salmon of the best quality will cost about 16 cents. The same quantity of bone, muscle, blood, and brain building material and body fuel in other foods would cost—

	Cents.
Eggs, strictly fresh (at 34 cents per dozen).....	36
Steak, sirloin (at 27½ cents per pound).....	33
Mutton, leg (at 19 cents per pound).....	32
Chicken, average (at 25 cents per pound).....	21½
Ham, smoked (at 18½ cents per pound).....	13¼
Pink salmon, canned (at 9 cents per can).....	12½

"Ham is apparently cheaper than the other meats because it contains more fat or fuel, the cheapest of nutritive ingredients, which can be supplied more cheaply by the vegetable food which should accompany the meats or fish."

The Bureau of Fisheries has also issued a circular on the use of mussels as food, which has led to a considerable increase in the demand for this hitherto neglected product.

The Bureau of Chemistry of the U. S. Department of Agriculture issued a bulletin prepared by M. E. Pennington, chief food research laboratory of the bureau, and entitled, "Supplementing Our Meat Supply with Fish," which has had a wide and beneficial effect throughout the country. This pamphlet also contains a short history of the efforts European governments are making to extend the markets for their fishery products.

Last summer John P. Mitchell, mayor of New York, appointed a committee on food supply, and this committee in October issued a booklet entitled, "Information About Fish and How to Use Them." This booklet gives directions on how to tell when fish is fresh, cleaning fish, when fish is in season, and how to cook fish, and should have a much wider circulation than New York City alone, as it is so simply and clearly written as to be easily understood by any consumer who is able to read English.

The New York health department also issued a bulletin relative to the food value of fish, in which the following table showing the quantity of protein in various foods and the cost per pound of same occurs:

FISH.		Per cent protein.	Cost per pound, cents.
Haddock	13	7	
Herring	19	8	
Bluefish	19	10	
Codfish	18	12	
Eels	18	15	
BEEF.			
Chuck	19	24	
Rump	19	24	
Round	21	20	
Sirloin Steak	19	30	
Ribs	18	26	

"Since you eat meat for the protein it contains, why not eat it in the form of fish, and save money?"

The directors of the port of Boston, shortly after the cattle quarantine was established last fall in a dozen states, on account of the outbreak of the foot and mouth disease, and thus caused an excessive shortage of beef products, with a consequent increase in the already high price, issued a bulletin on the subject in which they stated "there is only one way to meet the problem of an increased cost and shortage of meat—to supplement our meat supply by turning to the sea for fish. There is a limit to the supply of cattle, but when we come to the fish of the seas we find them feeding and breeding unaided, and practically in unlimited numbers."

The bulletin considers at some length the food value of fish as compared with meat, and also shows how important a factor the fishing industry is in the business of the port of Boston.

The Department of Naval Service, Dominion of Canada, which has charge of the fishing activities of the dominion, has issued a handsome and valuable little booklet entitled, "Fish and How to Cook It." This shows the nutritive qualities of fish as food, its cheapness as compared with other food products, and also gives a large number of recipes.

As to the digestibility of fish this booklet has the following which has been condensed from an article written by Sir James Crichton-Browne, M. D., D. Sc., on the "Value of Fish as Food":

"The same authority states that another very important reason why fish should be generally used is easy digestibility. Even feeble stomachs, that cannot readily deal with butcher's meat, find little difficulty in assimilating fish. The rapidity with which any kind of meat dissolves in the stomach depends largely on the fineness of its fibres. Thus beef is less digestible than mutton, because the fibres are longer and harder, and again mutton is less digestible than

California Tuna Canning Industry

By RUSSELL PALMER

OF the three fish known locally as "tuna" in California, only one species, the Long Fin Tuna or Albacore, (*Germo alalunga*), enters into the canned product of the state. The fact that not only this fish but the famous Leaping Tuna (*Thunnus thynnus*) and Yellow Fin Tuna (*Thunnus macropterus*) are known to most Californians simply as "tuna" has unfortunately resulted in some little confusion in the public mind and in some quarters at least the impression prevails that the commercial fishermen are engaged in packing one or both of these two latter game fish. A careful investigation both at San Pedro and San Diego would seem to indicate that this charge is without foundation.

The public is, however, scarcely to be censured for its vaguely general conception of this fishery, when it is remembered that the men who are actually engaged in the tuna canning industry are themselves seriously handicapped by a lack of knowledge concerning the fish which they are preparing. Those who have made a study of Californian waters dismiss the Long Fin with a few brief words of identification and there is a pronounced dearth of data on its life habits and history.

The indifference of early scientific observers is attributable doubtless to the fact that the commercial possibilities of the Long Fin have been brought to light only within the past few years. In fact Jordan, writing in 1905, says, "The flesh is of little value unless, as in Japan, it is eaten raw." The fish have always occurred plentifully in the waters of Southern California and could be taken with so little effort that in many instances they were brought into San Pedro, by the fishermen although no local market existed for them at the time.

It was not until a process particularly adapted to the individual qualities of the fish had been evolved that any progress was made commercially with the Long Fin. Experimental packing was first begun about five years ago by a sardine packing concern located in San Pedro. The first attempts to can the fish were very unsatisfactory and it soon became apparent that some radical change in the ordinary fish canning method would be necessary. The experimenters finally hit upon a

plan of baking the fish before it was placed in the can and introducing a vegetable oil to bring out the latent merits of the tuna.

Its processing problems once solved, the success of the industry was assured. Other plants soon sprang up at San Pedro and San Diego and the pack jumped from two hundred and fifty cases the first year to 115,000 cases in 1913 and in 1914 to 217,000 cases. In that year the industry reached its high water mark with a maximum of eleven plants in operation. Notwithstanding the fact that the domestic product bore slight resemblance to the imported, and the various concerns carried on distributive efforts without regard for each other's plans, the product has moved rapidly through trade channels and captured the fancy of the consumer.

METHODS OF FISHING.

The Long Fin is comparatively short and exceptionally thick set. Although single specimens weighing as much as one hundred pounds have been taken, the average weight is thirty pounds. It makes its appearance in the waters of Southern California early in the Spring and the fishing operations which begin with its arrival are often carried on as late as December. It is curious to note that fishermen report that the fish often disappears for months during the period between June and November. Nothing which could be dignified as a creditable theory has been advanced to account for the absence of this fish from its usual haunts at this time, but it has been hazarded that it spawns during this period. The Long Fin is a deep sea fish and is rarely taken near shore. It is a pelagic fish, moving in large, well distributed schools at a depth above ten feet. Oftentimes when the Long Fin can be seen in plentiful quantities by the fishermen it is impossible to secure a catch owing to the presence in the schools of the Leaping and Yellow Fin Tuna. These gamy, swift moving fish, owing to their prowess, are able to reach the bait before their more lethargic cousin.

The supposition among some is that the best fishing grounds for the Long

Fin are at a considerable distance from shore and that bigger and more economical catches could be made with large vessels on longer trips. The proper equipment has never been provided, however, and the Portuguese and Japanese fishermen have not yet displayed sufficient fortitude to test the theory out with their present craft.

The vessels employed are small, open motor boats driven by engines of about eight average horse power. Usually three or four men constitute a crew, although some vessels operate with only two. No attempt appears to have been made to evolve a vessel specially suited to this fishery and as a result those in use differ little in size and design from the common California type.

Hand line fishing is used exclusively in securing the commercial catch and until recently this meant trolling. The Japanese however, are credited with introducing the method of "chumming" now in vogue and being employed with success. Before starting on a trip the fishermen prepare a quantity of bait for chumming by chopping up sardines and other small fish common in the local waters. Enroute to the fishing grounds living sardines are caught by seining alongside. These are placed in a tank on ship board and the water renewed frequently to keep the bait in good condition. A live sardine is placed on a trolling line and the boat continues on her way slowly. When a strike is made, indicating the presence of a school, the engine is stopped and the chopped bait thrown overboard to keep the school about the boat. The hand lines are baited with live sardines and if the fish are running well they can be taken almost as fast as the lines can be cast and hauled. Almost incredible catches by this method are reported. It was stated to the writer at San Pedro that two men have taken a ton of Long Fin in less than half an hour.

Daily trips to the fishing grounds are made, the fleet returning each afternoon or evening to the canneries. The fish are dressed on the home trip when possible, and are generally delivered at the docks in this condition.

The industry supports a large number of individual fishermen to whom it appears to yield an excellent livelihood.

the breast of fowl. In fish the muscle fibres are very short and are arranged in flaky masses, which are easily separated one from another. Hence fish lends itself to comparatively speedy digestion. Of course, fish differ greatly in digestibility, the lean kinds being more readily disposed of than the fat, and salt fish, owing to the hardening of the fibre during salting, lingers longer in the stomach than fresh fish. Moreover, fish is less stimulating as a food than meat, which is a matter of importance in these days of heavy nervous tension.

"In this connection, however, an important feature must not be overlooked, viz., that, as in other foods, the digestibility and nutritive value of fish largely depends on the cooking of it."

The various associations of dealers in, and canners and curers of, fishery products have also done good work through the publication of pamphlets setting forth the good

qualities of their particular products. Among these might be mentioned the oyster bulletins issued by the Oyster Growers' and Dealers' Association of North America, and the Canned Salmon bulletins issued under the joint auspices of the Association of Alaska Salmon Packers and the Puget Sound Salmon Cannery Association. The most recent bulletin of the last named associations is entitled "Canned Salmon the Ideal Army and Navy Ration. An argument presenting the Merits of Canned Salmon as a Nutritious Low Priced Article of Food Especially Suited to Military and Naval Purposes." This bulletin has been extensively circulated amongst the army and navy purchasing agents of the different countries, and has already produced gratifying results.

The packers and canners have also done much to extend the markets for various fishery products by advertising and the circulation of pamphlets.

THE CANNING PROCESS.

On being delivered at the cannery the fish are placed in hanging racks to drain the blood and insure the whiteness of the meat. Red color, the fetish of the salmon industry, is not aspired to by the tuna packers who make a considerable point of the whiteness of their product. After draining, the fish are placed on trays in a large low pressure retort where they are baked in live steam. As the fish usually arrive at the plant in the evening or late afternoon the night is generally devoted to this stage of the process.

Next morning the baked fish are transferred from the retorts to the filling tables. Before the meat enters the cans it is carefully carved, the bones, skin and dark meat being removed. The white meat, which is kept as nearly whole as possible, passes to the filling crew which fills each can with solid meat. In addition to the pinch of salt used, a small quantity of oil is placed in each can prior to filling to supply the lack of natural oil in the fish. Olive oil was originally used for this purpose, but in 1913 all the plants save one had discontinued this practice and substituted cottonseed oil, which, it is claimed, has given equal satisfaction. Fish so packed, it might be added, are labelled "Packed with salad oil."

The solderless process is employed almost exclusively in the tuna industry so that from the filling tables the cans proceed to the topper, thence through the exhaust box to retorts, similar to those employed in the salmon trade, where it is cooked again in steam under pressure.

It will be noted that the process is unusual in that the fish are cooked before being placed in the can, reheated in the exhaust box and cooked again in the retort. That this combination is effective is apparent from the fact that the product is palatable, pleasing to the eye and of a fine white grain, not unlike the breast of chicken.

It might be mentioned here that the loss between the round fish and the finished product is considerable owing not only to the fact that a third of the weight is lost in dressing, but because only the select portions of the meat are utilized. In San Pedro, particularly, the disposal of this waste has been accomplished in a very satisfactory way by the sale of the offal to several local fertilizer manufacturers.

In 1914 several of the canneries packed some of the dark meat, and as it met with a good reception from the consuming trade, it is probable that all will soon be packed in cans.

OTHER FORMS OF PREPARATION.

A few of the canning companies have experimented in the packing of Long Fin tuna in other forms. Kippered tuna is an exceptionally palatable product and is said to be finding a ready sale locally. It has been noted before that in the canning only solid sections of meat are placed in the cans. This waste has already attracted the attention of one company which is planning to utilize the broken but

equally palatable bits of tuna by pressing them into cakes to be sold in sealed packages at a lower cost. Shipments of frozen tuna have been made to the Chicago market with excellent results.

PROPER IDENTIFICATION OF THE CALIFORNIA PRODUCT.

There seems to be little doubt but that the California product is rightfully entitled to the use of the name "tuna." While it is also known as Albacore, this term has less current usage. The California product is now being marketed both as "tuna" and "tunny." The last may be considered less desirable, since it might lay the packer open to the charge of endeavoring to represent his product as being that of the Mediterranean. The writer hastens to add in all justice to those who employ this designation that there appears to be little danger of confusing the imported and domestic product, owing to the different conditions prevailing in the two fisheries and the divergence in the methods of preparation. The examination of practically all the labels under which California tuna is being marketed shows that with characteristic native pride the origin of the product is prominently indicated. The single exception to this so far brought to the attention of the writer was a label in Japanese, issuing not from any of the regular packers, but from a Japanese concern of doubtful parentage which is not known to operate a packing plant. This label, it might be added, was withdrawn as the result of the protest of an American canner on whose trade marked product it infringed. The use of "tuna" in preference to "tunny" seems to have the advantage of avoiding confusion.

In connection with the rumored misimpression that the canners were utilizing the Leaping and Yellow Fin tuna as well as the Long Fin the packers point out that the meat of these latter fish in no way resembles that of the former. They state that it would be impossible to successfully substitute one for the other and that to introduce a number of grades of a new product simultaneously would result only in unprofitable confusion and suspicion among the buyers. Another potent reason is that they have no desire to antagonize the game fishing element of the state, which is well organized and powerful in legislative matters.

FUTURE OF THE INDUSTRY.

The future of the industry seems to depend upon the existence of a sufficient supply of raw material rather than on the limitations of the market, which is increasing rapidly from year to year. In view of the present lack of information concerning the Long Fin packers are frank in saying that they do not know the extent to which their business may develop without depleting the supply. They do state, however, that fishing operations do not appear so far to have had any appreciable effect on the supply of fish.

The successful extension of tuna

packing operations will mean much commercially to the state. California's principal fishery products now reach the market largely in a fresh state and as a consequence few manufacturing enterprises are built upon her fisheries.

The outlook for this industry seems, on the whole, a very bright one, and the progress made so far has earned for it serious consideration.

CONCLUSIONS.

The fact most patent to the observer in this field, as previously intimated, is the lack of any definite information, or for that matter any reasonable conjectures, concerning the life habits and history of the Long Fin tuna. Owing to the comparatively recent development and perfection of the processing methods the fish has never heretofore been of commercial importance in the Western Hemisphere. Though the success of this new industry seems well established, the want of information concerning the source of raw material does not serve to increase a financial confidence in it, such as has been established in the case of the salmon canning industry. Under present conditions any move towards further expansion, with a desire to increase the business, or retrenchment to insure the permanency, would have to be made absolutely in the dark. It will be impossible to conserve and properly regulate this fishery until ample scientific data is at hand. Furthermore, not only do those engaged in exploiting it keenly feel the lack of such knowledge, but the people of California want to know the truth about this newfound resource.

Good Printing

Is a very important feature
of your business.

Your letterheads and advertising matter are your advance salesmen and they should have dignity and style, and should be appropriate for your business.

WE DO THIS KIND
OF PRINTING

GATEWAY PRINTING CO.

COLLINS BLDG., SEATTLE

ALASKA CANNED SALMON

ALL GRADES

PACKERS OF THE FOLLOWING HIGH GRADE BRANDS:

PINKS	CHUM	MEDIUM RED	RED ALASKA
TRYET	DAYBREAK	FAME	PINNACLE
LIFEBOAT			

THE ABOVE LABELS ARE NOW WELL ESTABLISHED

Write or Wire Inquiries Direct to

WIESE PACKING CO.

CANNERY—Dall Island, Alaska.

Main Office—SEATTLE, U. S. A.

Pacific Fisherman Wall Map

NEW EDITION ISSUED JANUARY 20, 1915

Printed in 3 colors on heavy stock, with metal hangers

Showing the location of every Salmon Cannery, Saltery, Cold Storage Plant, Fish Oil and Fertilizer Factory, Codfish Plant, Codfish Station, Whaling Station, etc., on the Pacific Coast. **Postpaid \$5.00.**

PACIFIC FISHERMAN, Smith Building, Seattle, Wash.

G. Batchellor Hall Co.

SALMON

DISTRIBUTORS

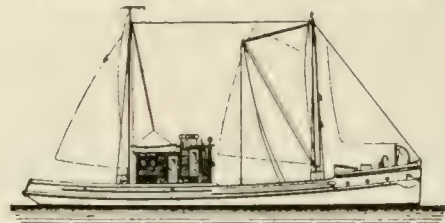
Foreign and Domestic Merchandising

511 Colman Bldg.

SEATTLE, WN., U. S. A.

NAVAL ARCHITECTS

Fishing Boats a Specialty



LEE & BRINTON

COLMAN DOCK, SEATTLE

Main 4879

ALUMINUM

GILL NET FLOATS

WHY THEY ARE THE BEST:

1. They are the cheapest because they last the longest. Floats that have been in constant use for the last 15 years are practically as good as new.
2. They never get water soaked and therefore save the fisherman a great amount of labor and can be used continually.
3. They are seamless, guaranteed not to leak and will withstand a pressure of at least 80 fathoms of water.
4. They attract fish because of their bright appearance in the water.
5. They are made of pure aluminum and will not rust or corrode. These floats are being used extensively by nearly all the fishermen on the Great Lakes and have been proven a big success. They are made in two sizes: $1\frac{1}{8}'' \times 4\frac{3}{8}''$ and $1\frac{1}{4}'' \times 5\frac{1}{4}''$. Samples and prices sent on request.

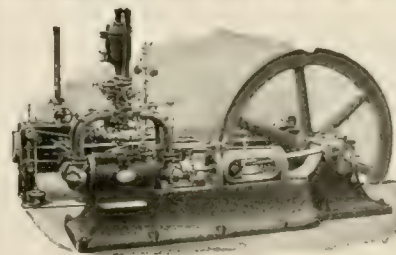
ALUMINUM GOODS MANUFACTURING CO.
Manitowoc, Wisconsin.

Established 1867.

THE VILTER MFG. CO.

1034 Clinton St., MILWAUKEE, WIS.

ICE and REFRIGERATING MACHINES Vertical or Horizontal



Horizontal Double-Acting
Refrigerating Machine

AMMONIA
FITTINGS,
AMMONIA
CONDENSERS,
SHARP-
FREEZER
COILS,
DOUBLE
PIPE BRINE
COOLERS,
ETC.

Branch Offices
in all Large
Cities.

Write for Bulletins

Salmon Hatching Statistics

The federal and state hatcheries nearly all met with good success in their collections of salmon and steelhead trout eggs during the season just closed, even Baker Lake hatchery, which was burned down last spring, managing to secure a fair take with its temporary facilities.

Both the federal and state commissions are now devoting more and more of their energies and money to the feeding and rearing of the fry to an age at which they will be able to look out for themselves on their journey to the sea. The progress in this line is necessarily slow, as rearing ponds have to be built or enlarged.

TAKE OF EGGS AT ALASKA PRIVATE HATCHERIES, 1914.

	Reds.
Alaska Packers Association—	
Karluk	30,240,000
Fortmann	22,500,000
Total	52,740,000
Northwestern Fisheries Co.	
Hetta Lake	7,438,500
Quadra Lake	20,400,000
Total	27,838,500
North Pacific Trading & Packing Co.—	
Klawack*	3,800,000
Total	3,800,000
Grand total	84,378,500

* Estimated.

HERRING FROZEN FOR BAIT—1914.

Alaska.	
	Pounds.
Booth Fisheries Co., Sitka	225,900
Juneau Cold Storage Co., Juneau	100,000
Ketchikan Cold Storage Co., Ketchikan	300,000
New England Fish Co., Ketchikan	920,000
Total	1,545,900
British Columbia.	
B. C. Packers Assn., Steveston	75,000
Canadian Fishing Co., Vancouver	1,910,000
Canadian F. & C. S. Co., Prince Rupert	750,000
Kincolith Packing Co., Mill Bay	50,000
Skeena River Syndicate, Haysport	100,000
Total	2,885,000
Puget Sound.	
Booth Fisheries Co., Seattle	719,930
Eyrett Fish Co., Eyrett	500,000
International Fisheries Co., Tacoma	130,000
National Independent Fish. Co., Seattle	150,000
San Juan F. & P. Co., Seattle	660,000
Total	2,159,930
Grand total	6,590,830

SIBERIAN SALMON SALTING.

The Japanese open the salmon along the belly from head to tail, remove the viscera and gills, then wash it and place salt inside. The fish are then placed in rows on matting and covered with salt, and other rows are placed on top of them until the pile is from eight to ten feet high, when the entire lot is covered with matting and left for about seven days, after which they are relaid and again covered with salt. For shipping the fish are packed in mats.

The Russians open the fish along the backbone. The roe, gills and viscera are removed, the fish then washed and placed in layers in tanks, salt being sprinkled between the layers. After remaining here until cured they are packed in barrels holding about 800 pounds of fish.

When being prepared for the European market a different method is followed. Selected fish are cut open along the belly, and the viscera and gills carefully removed. In order that the salt may penetrate the tissues more readily the flesh on the inside is scored several times. The fish are then washed and rubbed with brushes and kept in ice for twenty-four hours. The fish are then put in tanks with salt until cured, when they are packed in barrels with a strong brine.

Several primitive methods, similar to those in vogue by the natives of Alaska, in preparing salmon for the winter use of themselves and their dogs, are also in use.

SALMON EGGS TAKEN BY U. S. BUREAU OF FISHERIES, 1914.

Washington.

Puget Sound District.

Station—	Blueback.	Chinook.	Silvers.	Chums.	Total.
Baker Lake	8,215,900	140,000	3,427,000	.....	11,782,900
Birdsview	122,000	9,387,000	4,500	9,513,500
Brinnon	341,000	18,920,000	19,261,000
Darrington	2,315,400	2,578,500	4,893,900
Day Creek	92,000	2,169,000	56,000	2,317,000
Duckabush	47,000	5,176,000	5,223,000
Quilcene	524,000	9,208,000	9,732,000
Rockport	194,000	1,349,000	2,266,000	3,809,000
Sultan	226,500	3,218,000	.....	3,444,500
Total	8,215,900	774,500	22,602,200	38,209,000	69,976,800

Grays Harbor District.

Quinault	4,010,000	225,000	25,000	4,260,000
----------------	-----------	-------	---------	--------	-----------

Oregon.

Clackamas .....	.....	1,014,800	.....	.....	4,014,800
Little White Salmon .....	.....	35,000,787	.....	.....	35,000,787
Big White Salmon .....	.....	11,000,908	.....	.....	11,000,908
Rogue River .....	.....	2,882,465	.....	.....	2,882,465
Applegate .....	.....	579,400	2,163,800	.....	2,743,200
Illinois River .....	.....	561,190	210,600	.....	801,790
Total .....	.....	54,069,550	2,404,400	.....	56,473,950
Grand total	12,225,900	54,844,050	25,231,600	38,234,000	130,710,750

SALMON AND STEELHEAD EGGS TAKEN BY OREGON HATCHERIES, 1914.

Rivers South of the Columbia.

District—	Spring Chinooks.	Fall Dogs.	Silvers.	Sockeyes.	Total.
Tillamook Hatchery .....	.....	.....	.....	3,259,990	3,259,990
Siuslaw Hatchery .....	.....	.....	.....	20,000	20,000
Winchester Station .....	.....	.....	.....	640,000	640,000
Umpqua Hatchery	9,216,182	.....	.....	.....	9,216,182
South Coos R. Hatchery .....	.....	2,028,500	2,123,000	.....	4,151,500
Total	9,216,182	2,028,500	2,123,000	3,919,990	17,287,672

Columbia River.

McKenzie Hatchery	13,214,678	.....	.....	.....	13,214,678
Willamette Hatchery	9,318,440	.....	.....	.....	9,318,440
Snake River Hatchery	2,909,700	.....	.....	.....	2,909,700
Upper Sandy R. Hatchery .....	.....	.....	.....	449,500	449,500
Total	25,442,818	.....	.....	449,500	25,892,318
Grand Total	34,659,000	2,028,500	2,123,000	4,369,490	43,179,990

SALMON EGGS TAKEN BY WASHINGTON STATE HATCHERIES.

Station—	Chinook.	Dogs.	Silversides.	Steelheads.	Total.
Puget Sound	11,668,000	11,406,600	25,812,145	13,300	48,900,045
Columbia River	22,257,400	1,831,100	1,661,000	.....	25,749,500
Grays Harbor	105,000	13,415,000	4,997,000	.....	18,517,000
Willapa Harbor	437,700	.....	158,500	.....	596,200
Total	34,468,100	26,652,700	32,628,645	13,300	93,762,745



JAPANESE SALTERY WORKERS.

Mild Cured Salmon Review

1914—MILD CURED SALMON PACK—1914.

When I left Germany, on the 28th of June, there was no rumor of war, or any disturbance of business. We heard of the assassination of the heir to the Austrian throne by wireless on the ocean. At that time the market in mild-cured salmon just became normal. After a long interval, during which time the market had been very dull, principally on account of the large quantities of Alaska salmon which were small in size and partly of very poor quality. To sell these salmon it had been necessary to make very low prices, and I have heard of sales of considerable quantities of these fish at prices which would not net the packer in Alaska two cents per pound for the fresh fish. Similar sales have taken place from New York to Ger-

Alaska.

NAME	Location of Plant—	—PACK— Kings or Chinooks No. tierces
Alaska Co-operative Fishing & Packing Co.	Wrangell	290
Campbell, Malcolm	Dry Bay	100
Columbia & Northern Fishing & Packing Co.	Wrangell	115
Cook Inlet Packing Co.	Seldovia	50
Dahl, M. B.	Sch. Volante	185
Diamond T. Packing Co.	Ketchikan	60
Fidalgo Island Packing Co.	Port Graham	12
Glacier Fisheries Co.	Icy Straits	8
Kake Trading Co.	Kake	11
Lindenberger, J., Inc.	Various	500
Pacific Coast & Norway Packing Co.	Petersburg	55
Reynolds-Slocum Packing Co.	Ketchikan	60
Sauborn Cutting Co.	Kake	40
Shields, J. A.	Bethel	100
Swift-Arthur-Crosby Co.	Heate Island	120
Salmon Packing Co.	Ketchikan	494
Taku Canning & Cold Storage Co.	Taku Harbor	115
Vendysssel Packing Co.	Tyce	448
Wiese, Englbr., Inc.	Various	1,054
Total Alaska		3,872

Puget Sound.

Booth Fisheries Co.	Seattle	555
Deming, A. W.	Bellingham	450
Gorman & Co.	Neah Bay	104
International Fisheries Co.	Tacoma	50
San Juan Fishing & Packing Co.	Seattle	582
Sales, E. A.	P. H. Townsend	175
Walker, W. A.	Neah Bay	18
Total Puget Sound		1,934

Columbia River.

Columbia & Northern Fishing & Packing Co.	Altoona, Wash.	550
Columbia River Packers' Association	Astoria	1,121
Doty Fish Co.	Kalama, Wash.	288
Lindenberger, J., Inc.	Astoria	200
Sauborn-Cutting Co.	Astoria	300
Schmidt, S., & Co.	Astoria	700
Tyburn Grand Packing Co.	Astoria	400
Union Fishermen's Co-op. Packing Co.	Astoria	1,000
Vendysssel Packing Co.	Astoria	305
Warren Packing Co.	Goble, Ore., Cathlamet, Wash.	281
Total Columbia River		5,205

Oregon Coast.

Barnes, F. C., Co.	Waldport	20
Elmore Packing Co.	Various	8
Maclay Estate Co.	Wedderburn	84
Umpqua Co-op. Packing Co.	Gardiner	135
Union Fishermen's Co-op. Packing Co.	Wheeler, Bay City	110
Total Oregon coast		457

Sacramento River.

American Fish & Oyster Co.	Pittsburg	644
Carquinez Packing Co.	Benicia	210
Lindenberger, J., Inc.	Pittsburg	800
Western Fish Co.	San Francisco	100
Wiese, Englbr., Inc.	Vallejo	75
Total Sacramento river		1,829

California Coast.

American Fish & Oyster Co.	Monterey Bay	276
Sacramento River Packers' Association	Monterey	1,200
Total California coast		1,476

British Columbia.

British Columbia Packers' Association	Vancouver	1,036
Canadian Fish & Cold Storage Co.	Prince Rupert	346
Kincaid Packing Co., Ltd.	Vancouver	100
San Juan Fishing & Packing Co.	Victoria	400
Vendysssel Packing Company	Brought at Victoria	300
Wallace Fisheries, Ltd.	Alberni Canal	1,000
Total		3,182
Grand total		17,955

RECAPITULATION.

District—	No. of Packers	Total tierces
Alaska	19	3,872
Puget Sound	7	1,934
Columbia River	10	5,205
Oregon Coast	5	457
Sacramento River	5	1,829
Monterey Bay	2	1,476
British Columbia	6	3,182
	54	17,955



F. KLEVENHUSEN.

many during the spring. The pressure of these fish upon the price of the higher grades could, of course, not be avoided, but with the intention of all the packers in Alaska to put up only a very small pack, it could be expected that the market would improve against fall.

The Columbia river salmon were practically all sold, the 1913 pack having been short; this gave the packer on this river the opportunity to make contracts for new (1914) season with their Eastern and also their Scandinavian and German customers, while it was impossible until that time to raise the price for the smoked product altogether the prospects were not so bad when the war started, and taking into consideration that the early spring pack in Monterey was good, there was also a good demand for Columbia river

salmon in New York and other Eastern markets, notwithstanding that there were large quantities of Alaska and Sacramento fall salmon, partly of dubious quality, in New York.

I might mention here that the salmon pack on the Oregon coast streams during the year 1914 did not amount to much. On the Sacramento, however, a considerable quantity of salmon of fair quality and good sizes were packed at very low cost.

Quite a number of carloads of new Puget Sound, Alaska, and also some new Columbia river salmon were shipped to Germany and to the Scandinavian ports before the war started, but from that date on there was practically no business whatsoever in Germany for months, and after that the trade was very bad still, principally in the higher grades.

In Germany, which could do hardly any export business, everybody tried to save money, and while meat and all general food stuff was very cheap, there was only a very small demand for smoked salmon, and the dealers never ran short of salmon.

With Germany practically unable to import salmon from America, the Scandinavian countries were overstocked. Norway would not allow any salmon to be exported, and Sweden had a hard time to get the salmon into the country, at least through their own ports, since the steamer companies in New York were very particular in taking cargo while the English navy was controlling the whole trade, and requested a permit from the Swedish

Government countersigned by the British Consul in Gothenburg. The same shipping conditions were prevailing also to other countries. It was unavoidable that the New York market became overstocked again, and from what I heard, from good sources, I can see that the prices for mild-cured and smoked salmon are very low, and will be low for quite some time even if the war should be over or the undisturbed export to all countries concerned be free, the enormous high course of the dollar, the incredibly high freight rates and the small demand in Europe, which results from the intention of the people to save money, will be the drawback to a normal development of the trade.

Here is an example: Figuring that a carload of good salmon would cost in New York \$4,000, and that this amount of dollars could be bought, under normal circumstances, in Germany at 16,900 marks, and that the freight in common space, at a rate of 25 shillings per ton, would be about 460 marks, the insurance 40 marks, altogether M. 17,400. The figures would be, under the now prevailing circumstances, for a carload costing \$4,000,—M. 18,400, the freight at 130 shillings per ton, M. 2,390, and the war and marine insurance 540 marks, for a carload delivered in Europe, 21,430 marks.

There is very little chance that the course of the dollar and the expenses for freight, etc., even short after the war, will be more favorable to the trade.

The Steelhead market last spring was normal and when the first new fish came to the German market, the old stock was practically sold out, so that the prospects were good until the war started. The steelhead trade was hurt by the war more than the mild-cured salmon trade, and during the months of August and September, which are supposed to be the best months for the sale of these goods, practically no business was done. It took my firm more than two months to sell one carload of frozen steelhead, while we sold during the same time last year, six carloads.

There was no possibility to ship Steelheads to Switzerland, which with her large number of big hotels and restaurants always has been a good customer. One can realize that the export to the belligerent countries was also impossible. The Scandinavian countries use very little Steelhead and as the outlook was so bad most of the Steelhead on the Columbia river has been put in cans.

The general situation for the coming season for the cold storage industry, as I look at it, will not justify the pack of large quantities of any kind of salmon, and especially the Alaska mild-curer should bear in mind that enormous sums in money were lost during the last few years and that besides the far too large stock of 1913, the quality and principally the size of the fish, under no circumstances will justify the prices paid for these fish, and that individual fishermen or small packers should not forget that the mild-cure

F. Klevenhusen & Co.

Bremen, Germany

Packers, Smokers and Commission Merchants



• •
**Oldest
 House
 in the
 Salmon
 Trade
 in
 Germany**
 • •

Importers of **Mild Cured and Frozen Salmon**

Agents for COLUMBIA & NORTHERN FISHING AND PACKING COMPANY

Frozen Fish Review

1914—FROZEN FOOD FISH PREPARED—1914

COMPANY	LOCATION	Black Cod	Halibut	Salmon	Steelh'd Trout	Miscellaneous	TOTAL
Alaska—							
Booth Fisheries Co.....	Sitka		1,078,295	22,850			1,101,145
Columbia & Northern Fishing & Packing Co.....	Wrangell		190,720				190,720
Juneau Cold Storage Co.....	Juneau		60,000	46,153			106,153
Ketchikan Cold Stor. Co*..	Ketchikan	3,737	259,055	9,098			271,890
N. E. Fish Company.....	Mill Bay		3,100,000	100,000	3,000		3,203,000
Taku Canning & C. S. Co.	Taku Harbor	25,013	487,923	44,325	10,106		567,367
Total Alaska		28,750	5,175,993	222,426	13,106		5,440,275
British Columbia—							
B. C. Packers Association	Steveston		300,000	830,000	30,000		1,160,000
Canadian F. & C. S. Co., Ltd.†	Prince Rupert		2,500,000	1,000,000			3,500,000
Canadian Fishing Co., Ltd	Vancouver		3,280,999	1,835,000		650,000	5,766,000
Kincolth Packing Co.....	Mill Bay	25,000	1,000,000	750,000			1,775,000
Skeena River Syndicate†..	Haysport		225,000				225,000
Total British Columbia		25,000	7,305,000	4,415,000	30,000	650,000	12,425,000
Puget Sound—							
Booth Fisheries Co.....	Seattle	70,225	1,001,409	980,509	7,350	106,286	2,165,579
Everett Fish Co.....	Everett	15,000	75,000	340,000	10,000	15,000	455,000
International Fisheries Co	Tacoma	50,000	500,000	485,000	3,000		1,038,000
Nat'l Indep't Fish. Co....	Seattle	20,000	850,000	220,000		26,000	1,116,000
San Juan Fish. & Pkg. Co.	Seattle	116,881	1,247,385	1,950,000	7,000	121,000	3,144,266
Comm'l Cold Stor. Plants.	Seattle	37,362	624,351	2,681,675		385,673	3,699,061
Total Puget Sound...		309,468	4,287,145	6,366,984	27,350	628,959	11,617,966
Columbia River—							
Barbey Fish Co.....	Portland			20,000			20,000
Columbia Riv. Pkrs. Assn	Astoria			351,129	81,852		432,981
Doty Fish Co.....	Kalama			610,000	110,000		720,000
Klevenhusen, F.....	Altoona			120,000			120,000
Lindenberger, Inc., J.....	Astoria			208,430			208,430
Schmidt, S. & Co.†.....	Astoria		25,000	180,000			205,000
Union Fish Co-op. Pkg. Co.	Astoria		52,831	191,182			244,016
Vendysssel Packing Co....	Astoria			100,000			100,000
Total Columbia River				687,831	1,173,711	191,852	2,053,427
San Francisco, Etc.—							
Fish dealers, etc.....	San Francisco, Oakland and Sacramento.....			595,456			595,456
Grand total		363,218	16,766,138	12,287,700	1,244,197	1,470,811	32,132,064

* Frozen for San Juan Fishing & Packing Co.
 † Estimated.

fish needs good attention by absolutely experienced men, and that this salmon has to be handled in cold storage. The reputation of the Alaska mild-cured salmon has already received an awful blow during the last two seasons on account of so many fish being put up so carelessly. The salmon for mild-curing should also not be bought at a uniform price per piece or per pound wherever the facilities for grading and selecting are given.

As regards the Steelhead market, I may say that I am not looking for big sales, even at normal prices, and even figuring on an end of the war before the spring season opens.

We must take into consideration that it will be quite some time before the trade of the belligerent countries and also the neutral European countries, which have been suffering on account of the war considerably, will recover.

(Signed) F. KLEVENHUSEN.

MILD-CURED SALMON PACK ON THE PACIFIC COAST, 1897-1914.

YEAR	Alaska	British Columbia	Puget Sound, Wash.	Grays Harbor, Wash.	Willapa Harbor, Wash.	Columbia River (both sides)	Coastal rivers, Oregon.	Eel River, Cal.	Sacramento River, Cal.	Monterey Bay, Cal.	Total.
1897						400					400
1898	70					700					770
1899	130			375		1,250					1,755
1900						1,275			950		2,225
1901	67		600			3,000		3,100			6,767
1902	67		425			4,213	188			504	7,722
1903	8		824			6,725		3,600		354	11,511
1904	34		1,250			9,988		200	4,719	248	15,539
1905	189	1,175	3,000			9,805	415	2,979	310		17,873
1906	1,126	957				8,000	740	175	2,177	510	13,685
1907	1,657	1,993	2,060	29	100	6,070	740	140	4,102	582	17,464
1908	1,378	1,060				4,960			3,243	252	10,893
1909	2,292	1,560	21,409	75	29	3,540	560	80	5,111	911	18,267
1910	3,357	1,638	21,435	67		7,922	1,398		5,516	75	29,408
1911	3,164	2,066	2,745	100	20	8,185	1,247	110	2,011	199	19,758
1912	45,245	1,380	3,013	357	40	5,824	3,682	100	3,274		22,315
1913	47,440	2,125	13,631	259	\$50	5,746	2,381		4,789	559	26,952
1914	3,872	3,182	1,934			3,205	157		1,829	1,476	17,955
Total....	30,096	17,076	24,026	1,244	249	93,908	11,208	805	40,725	5,932	234,269

* Shown in tierces holding about 800 pounds of fish. Klug, Chinook or Spring salmon are used almost exclusively. From most places the data are complete from the time of the inception of the industry, but from a few minor places the data are somewhat fragmentary.

† Includes 123 tierces of mild-cured Cohos.

‡ Includes 271 tierces of mild-cured Cohos and 9 tierces of Dog salmon.

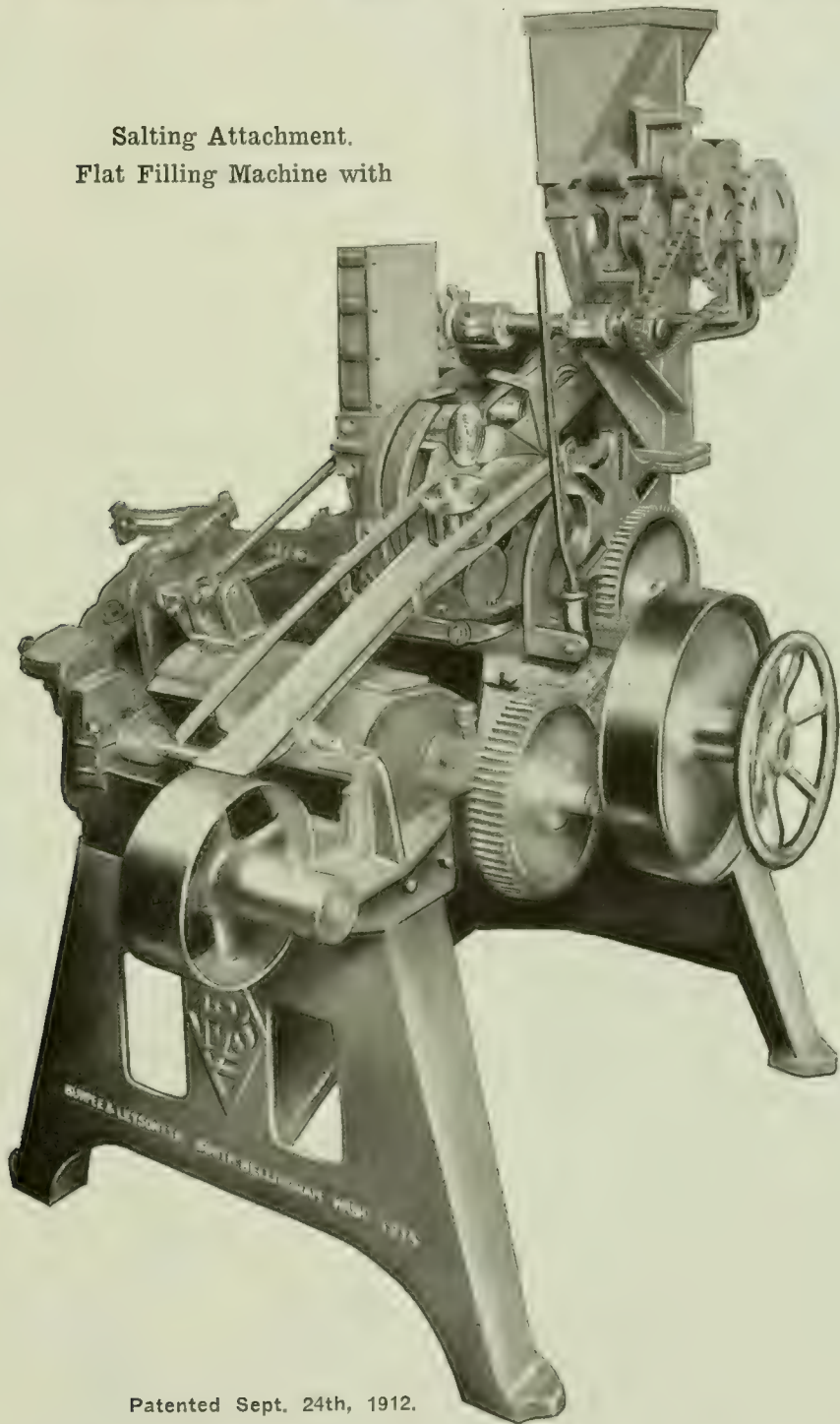
§ Includes 63 tierces of mild-cured Dog salmon.

¶ All Cohos.

PACIFIC FISHERMAN

FLAT AND HALF FLAT FILLING MACHINES

Salting Attachment.
Flat Filling Machine with



Patented Sept. 24th, 1912.

Why put your best grade of fish in tall cans when
you can put it in flats by machinery



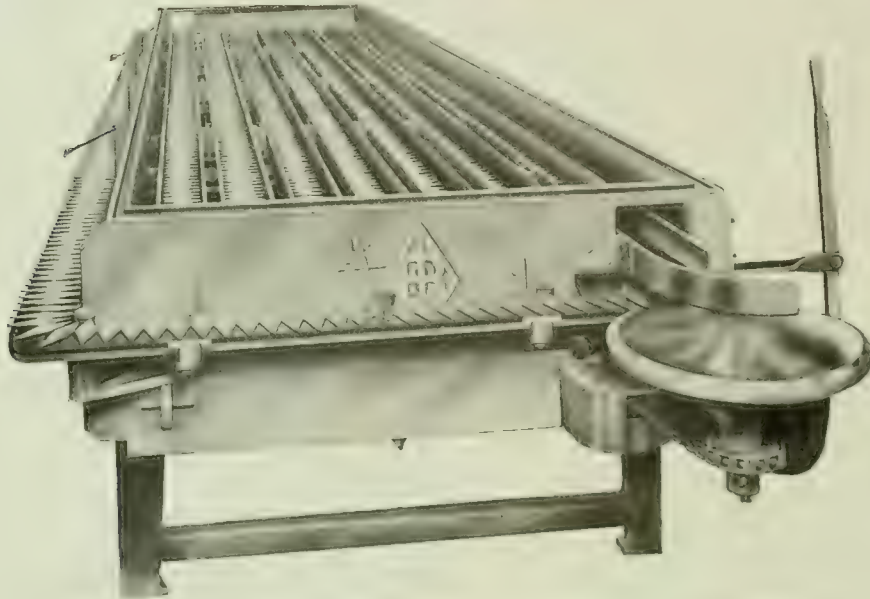
BURPEE & LETSON, Ltd.
South Bellingham, Wash.



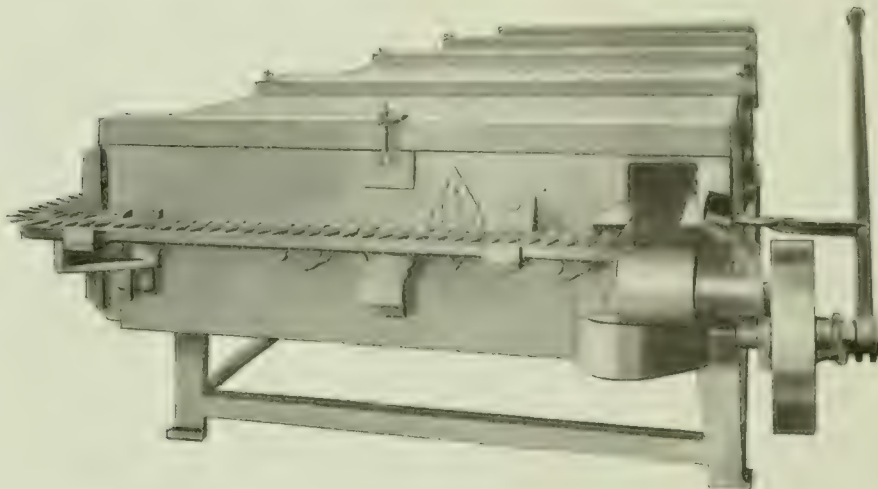
PACIFIC FISHERMAN

Endless Diamond Chain Exhaust Box

Patented Sept. 15th 1914.



Seven-Run Box with Disc Discharge as used in Fruit Cannery.

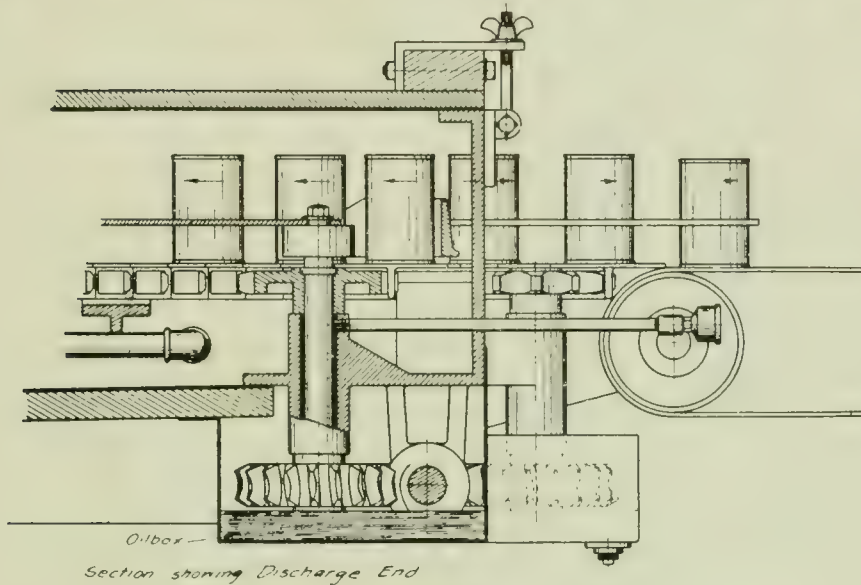


Discharge End of Exhaust Box, Showing Pulley for Belt Delivery.

No transfers or turntables to give trouble.
Chain is automatically kept tight at all times.
Interchangeable box for all sizes of cans.

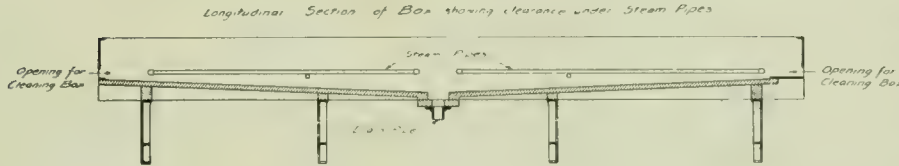
BURPEE & LETSON, Ltd.
South Bellingham, Wash.

Endless Diamond Chain Exhaust Box

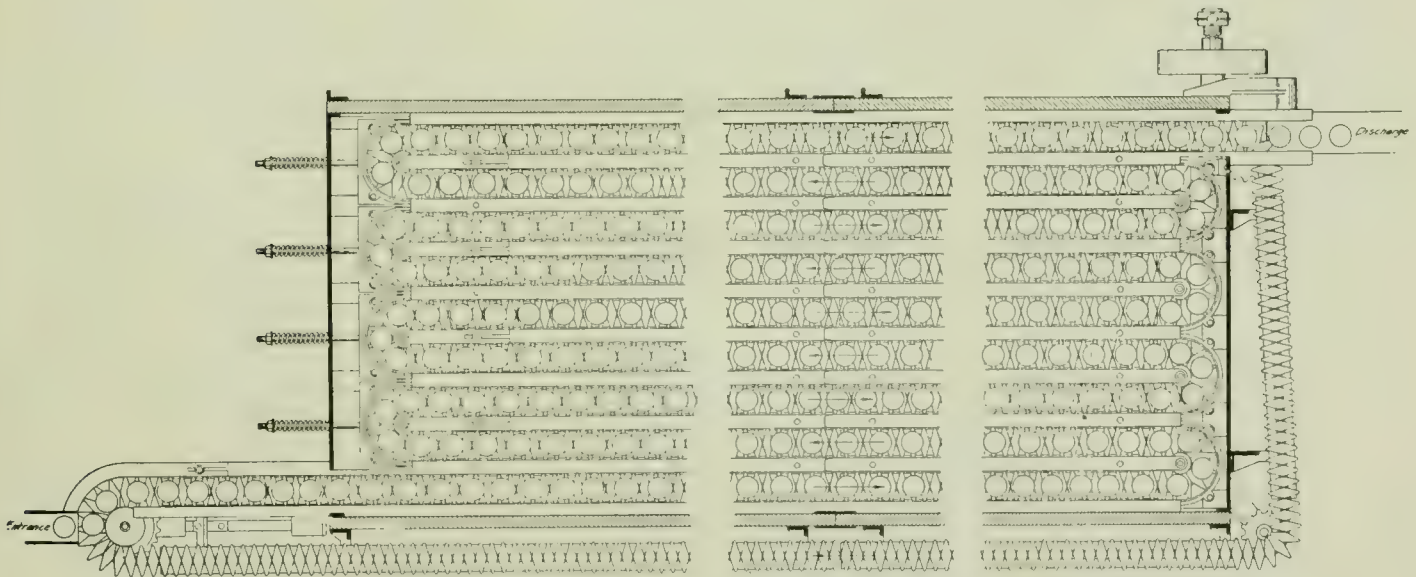


Driving shaft, worms and wormwheels immersed in oil.

Each two lines has a driving sprocket.



Notice the slope of the bottom to the center, large drain pipe and the openings at each end for washing down.



Plan of Nine-Run Box, with Belt Discharge.



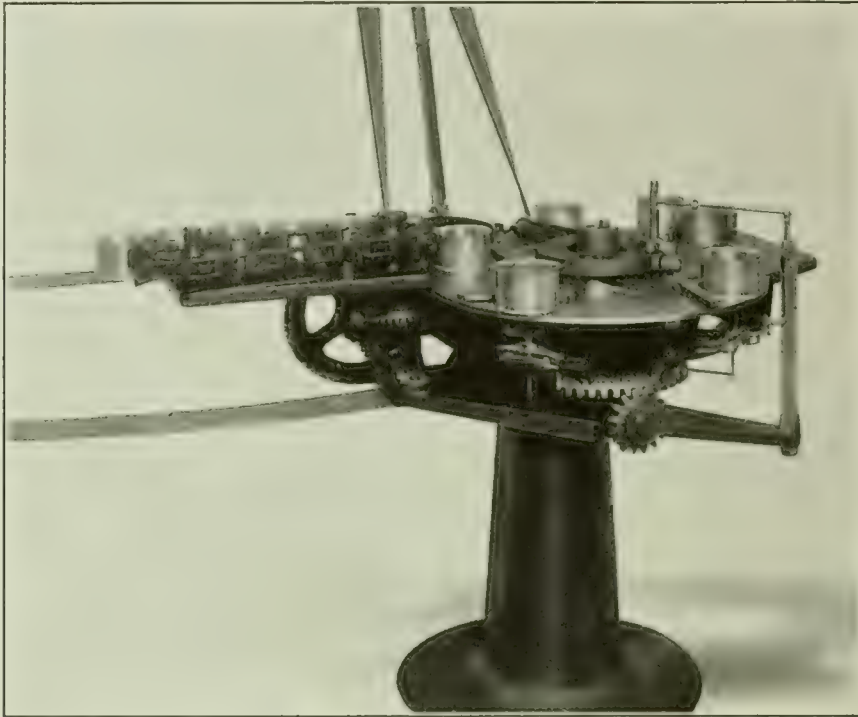
BURPEE & LETSON, Ltd.

South Bellingham, Wash.

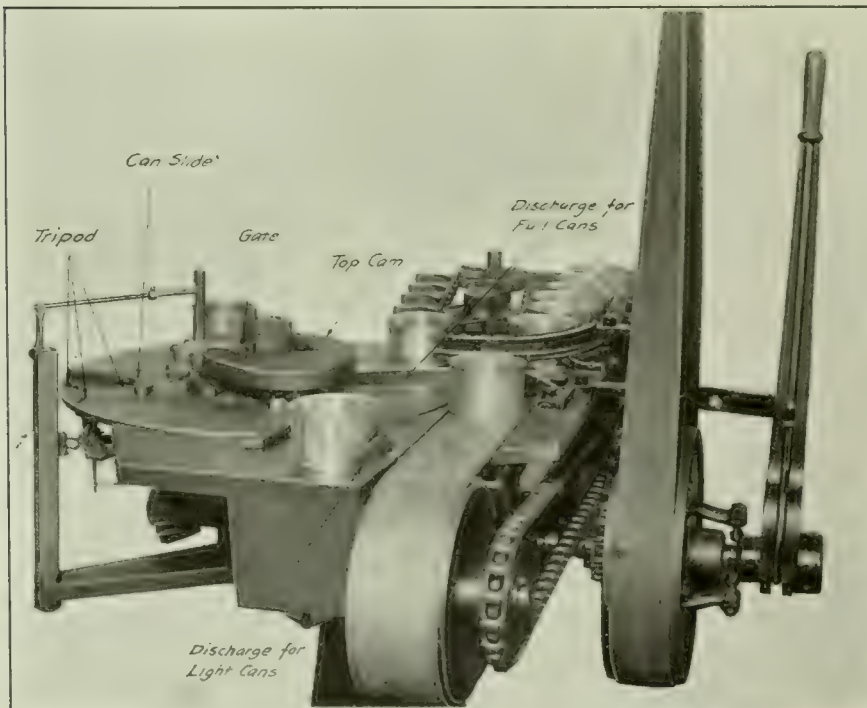


PACIFIC FISHERMAN

WEIGHING MACHINE



Patents applied for.



This Machine will handle the three sizes of cans, at a rate of 70 per minute,
and will actually pick out your light weight cans.

Our Pamphlets are free for the asking

BURPEE & LETSON, Ltd.
South Bellingham, Wash.

Halibut Review

1914—PACIFIC HALIBUT CATCH—1914

	Pounds
American vessels*	48,902,575
Canadian vessels	15,956,800
Total	64,859,375
Catch in 1913	55,421,805
Increase in 1914	9,437,570

*Includes the catches landed in Alaska and frozen there, and the catches of American vessels landed in Canada.

Despite the fact that the year just closed was the most productive of any since the industry began on this coast, it proved far from a financial success to either fishermen or dealers.

The last half of 1913 there was a considerable increase in the cold storage facilities of this coast and as halibut were abundant large quantities were frozen. Thinking this condition of affairs would continue a number of new power vessels of a generally larger and more efficient type were built and most of these went into commission during the early part of 1914.

Frozen halibut are generally marketed during the winter months, when storms in the North very materially reduce the number of fishing days, while a number of the vessel owners select this season for the repairing of their vessels, thus causing a heavy falling off in the receipts of fresh halibut. The weather, however, proved fairly good and considerable quantities of fish were brought in fresh, and this almost killed the sale of frozen fish, most of which had either to be carried over at a heavy continuous cost or else sold for what they would bring.

As the weather became more settled, and the whole fleet began to operate on the banks, such immense quantities of fish were brought to this market that occasionally the price dropped below a point where the fishermen could make a profit, and frequently the crews were in debt when the catch had been sold.

The real fact of the matter is that the business has been overdone. Reports of immense profits to be made in catching halibut were so common that it was an easy matter for masters and fishermen to secure capital for vessels of their own, and this, together with the removal of the duty on fresh fish, which caused an increased output by Canadian fishermen, most of which found a market in this country, resulted in such a large increase in the catch that the consuming market was unable to take care of it, and the only hope for relief is in the extension of the markets for halibut or a reduction in the fleet.

The hardest blow the halibut indus-

Note.—Prices quoted in above tables are for first grade fish; second grade fish bring usually one-half of these prices.

	1914				1913				RECEIPTS				SELLING PRICE				NUMBER OF TRIPS				AVERAGE TRIP	
	From Independent Schooners	From Company Vessels	Total Independent and Company Catch	Boxed Fish from Alaska	Grand Total Receipts	High-est	Low-est	Aver-age	Schoon-ers	Steam-ers	Schooners	Steamers	High-est	Low-est	Aver-age	Schoon-ers	Steam-ers	Schooners	Steamers	Independent Schooners	Company Vessels	
January	628,000	388,000	916,000	1,774,230	2,690,230	6%	4	5	10	1	237,700	12,000	12%	3	6.1	438	138	35,369	99,399	58,667	129,333	
February	846,000	705,000	1,551,000	1,070,230	2,621,500	6%	3	4.1	8	8	47,000	117,500	7%	3	6.1	18	3	37,214	89,575	47,000	117,500	
March	1,534,000	1,063,000	2,597,000	1,661,230	4,258,500	7%	3	4.9	10	17	34,231	118,333	8%	3	6.1	39	10	37,214	89,575	34,231	118,333	
April	2,289,600	1,467,000	3,756,600	2,927,950	6,684,550	7%	2 1/2	3.2	29	23	28,745	120,583	8%	2 1/2	6.1	80	10	37,214	89,575	28,745	120,583	
May	3,124,000	1,947,000	5,071,000	3,100,000	8,171,000	6 1/2%	2 1/2	3.3	106	106	30,646	138,182	6 1/2%	2 1/2	6.1	99	11	37,214	89,575	30,646	138,182	
June	3,124,000	1,947,000	5,071,000	3,100,000	8,171,000	6 1/2%	2 1/2	3.3	106	106	30,646	138,182	6 1/2%	2 1/2	6.1	99	11	37,214	89,575	30,646	138,182	
July	1,930,000	1,325,000	3,255,000	3,100,000	6,355,000	7 1/2%	2 1/2	3.6	32	32	41,157	106,667	7 1/2%	2 1/2	6.1	76	15	37,214	89,575	41,157	106,667	
August	3,062,000	1,925,000	4,987,000	3,100,000	8,087,000	5	2 1/2	3.6	117	117	45,883	110,417	5	2 1/2	6.1	67	10	37,214	89,575	45,883	110,417	
September	2,614,000	1,095,000	3,709,000	43,425	3,752,425	8%	2 1/2	4.5	38	38	45,701	130,000	8%	2 1/2	6.1	70	9	37,214	89,575	45,701	130,000	
October	1,255,000	884,000	2,139,000	913,500	3,052,500	8 1/2%	4 1/2	7.3	27	27	38,343	121,666	8 1/2%	4 1/2	6.1	10	9	37,214	89,575	38,343	121,666	
November	1,431,300	733,000	2,164,300	879,300	3,043,600	9 1/2%	4 1/2	6.1	15	15	35,782	88,400	9 1/2%	4 1/2	6.1	40	6	37,214	89,575	35,782	88,400	
December	972,000	1,013,500	1,985,500	527,400	2,512,900	9%	4 1/2	6.1	8	8	48,000	144,786	9%	4 1/2	6.1	20	7	37,214	89,575	48,000	144,786	
Total	22,434,900	13,085,500	35,520,400	6,305,175	41,825,575	9%	2	4.7	599	110	37,454	118,959	9%	2	6.1	438	138	35,369	99,399	35,369	99,399	

LIST OF PUGET SOUND HALIBUT VESSELS.

Independent Vessels.

NAME	OWNER	Net Tonnage	Crew	Dories	Capacity Lbs.
Alaska	N. Hansen	44	19	8	80,000
Alfa	Olaf Johnson	12	5	2	20,000
Albatross	A. Lindrog et al.	40	13	5	80,000
Alten	Jacob Bassl	43	15	6	80,000
Alvilda	O. J. Storness	18	9	3	20,000
America	M. W. Keating et al.	25	11	4	55,000
Annie	M. S. Larsen	11	5	2	25,000
Annie J. Larsen	H. C. Larsen	25	11	4	50,000
Athens	E. Forbes	56	17	7	120,000
Atlantic	Theo. Tonneson	25	11	4	40,000
Bring Gold	A. J. Anderson	12	5	2	25,000
Coastance	Mutual Fish Co.	38	13	6	100,000
Constitution	Sorensen & Knutsen	39	13	5	65,000
Corona	Swanson Bros.	19	11	4	55,000
Crescent	Olaf Johnson	14	5	2	30,000
Daisy	N. W. Fish Co.	18	9	3	40,000
Decorah	Nils Hansen	26	11	4	60,000
Dick	Nils Hansen	10	5	2	20,000
Director	Nils Hansen	12	5	2	20,000
Eagle	E. Nilsen	20	11	4	45,000
Elsie	John Ludgard	14	5	2	20,000
Flaunlogo	Ed Peterson et al.	13	5	2	25,000
Gjoa	King & Wlge	13	5	2	25,000
Gladiator	Geo. Peany	7	5	2	30,000
Hanna	S. E. Skarsvogg	11	5	2	15,000
Helgeland	E. E. Edwards	56	13	6	90,000
Higblaud Queen	Knud Knudsen	12	5	2	25,000
Idaho	Harold Lee	52	17	7	100,000
Ida N.	Andrew Nesser	21	9	3	40,000
Jennie F. Decker	Sundt & Erlaud	16	9	3	35,000
Jupiter	Peter Rydgard	10	5	2	25,000
King & Wlge	King & Wlge	97	19	8	130,000
Kodiak	O. Larsen and O. Peterson	38	15	6	80,000
La Paloma	Richard Gladuey	14	11	4	60,000
Liberty	J. Eggdahl et al.	44	15	6	90,000
Lief L.	Jacob Johnson	18	9	3	35,000
Lincoln	Ole Lindvog	17	9	3	40,000
Lister	H. C. Petersen	14	5	2	30,000
Louise	Ole Tonneson	16	5	2	30,000
Madeline J.	Antor Johnson	21	9	3	35,000
Magiolla	Geo. Soelberg	25	9	3	35,000
Maiolo	W. C. Hurley	9	11	4	45,000
Mary	A. M. Samuelson	16	5	2	20,000
Mars	Sunde & Erlaud	9	3	2	20,000
Morengri		5	5	2	20,000
Myrtle Endresen	Chris. Endresen & Co.	45	15	6	70,000
Norman Sunde	A. Brakne	37	9	3	40,000
Omniaey	Dave Hassel	14	11	4	70,000
Olympic	Harold Knutsen	30	11	4	60,000
Orlet	Harold Nesland	39	13	5	70,000
Pacific	Fred Snelcker	26	11	4	60,000
Pauana	M. Johnson	34	13	5	90,000
Pauline	Albert Olsen	14	5	2	20,000
Phoenix	B. Erneron	14	5	2	20,000
Pilot	John E. Jensen	10	5	2	30,000
Pioneer	N. Vick	13	5	2	85,000
Polaris	Egill Erksen	47	15	6	80,000
President	Michael Skarsie	17	5	2	30,000
*Prince Olav	Ed. N. Rodal	10	3	1	15,000
Progress	Progressive Fish Co.	115	19	8	175,000
Republic	N. B. Hegge	51	19	6	95,000
Rolfe	Valdemar Holm	6	5	2	30,000
Royal	Jacob Johnson	15	9	3	35,000
†Rush		254	36	12	400,000
Seattle	E. B. Larsen	55	19	8	90,000
Senator	H. Jacobsen	11	11	4	60,000
Seymour	B. Olsen	44	15	6	70,000
Shamrock	R. P. Walker	21	11	4	55,000
Shika	J. Johansen and P. Bae	50	15	6	90,000
Swiftsure	Ed. S. Hocm	22	9	3	35,000
Summer	M. J. Rolle	34	11	4	60,000
Thekla	J. Skotheim	15	9	3	30,000
Thelma	Peter Carlson	15	5	2	30,000
Tom & Al	King & Wlge	57	15	6	100,000
Tordenskjoeld	C. Serwold	30	13	5	70,000
Tye	Pompsbo Fishing Co.	89	19	8	150,000
Uranus	Chris Nilsen	15	9	3	25,000
Valiant	Pac. N. & T. Co.	12	5	2	25,000
Vaisee	Ole Tonneson	43	13	5	75,000
Venus	A. Berihoff	23	9	3	60,000
Victor and Ethan	H. Nickerson	53	17	7	100,000
Washington	John Hansen	24	11	4	60,000
Wilson		11	5	2	20,000
Yakutat	Iran Selbrette	41	13	5	75,000
Zillah May	Chris Endresen Co.	56	15	5	90,000

Company Vessels.

Chicago	Booth Fisheries Co.	129	44	12	350,000
Comet	San Juan F. & P. Co.	68	20	7	140,000
Commonwealth	International Fisheries Co.	60	18	6	110,000
Independent	National Independent Fisheries Co.	123	38	14	230,000
Knickerbocker	New England Fish Co.	101	25	18	150,000
Purltan	International Fisheries Co.	53	18	6	100,000
Ronald Amundsen	National Independent Fisheries Co.	16	7	2	30,000
San Jose	San Juan F. & P. Co.	14	15	5	70,000
San Juan	San Juan F. & P. Co.	128	37	12	200,000
Scandia	National Independent Fisheries Co.	79	19	8	140,000
Starr	San Juan F. & P. Co.	187	38	12	400,000
Zapora	International Fisheries Co.	196	38	12	225,000

* Seized by Canadian authorities.
† Since sold out of the business.

try of the Pacific Coast ever received was when Congress abolished the duty of one cent per pound on fresh fish. Coming as it did so short a time before the completion of the Grand Trunk Pacific Railway to Prince Rupert, it greatly encouraged the Canadians in their endeavors to induce the fishing industry of our Northwest coast to transfer its headquarters to Prince Rupert. All sorts of generous offers of free sites and financial subsidies have been made to the wholesale dealers, while our fishermen have been offered distillate free of all duty and the right to buy bait and supplies in British Columbia ports if they will only transfer their allegiance.

The year just passed proved especially hard on the small halibut companies operating in British Columbia, several of which were forced to the wall by the low prices which prevailed for halibut and the difficulty of securing needed funds owing to the war.

For a number of years there have been rumors of prolific halibut banks off the Washington and Oregon coasts. In order to verify these the U. S. Bureau of Fisheries steamer Albatross was detailed to investigate the region in question. Under the able direction of Waldo L. Schmitt, naturalist of the vessel, assisted by a picked Seattle crew of halibut fishermen, the region in question was partly covered, and halibut found in a few sections, notably off Yaquina Bay, Oregon, during the summer season. A few of the Puget Sound fleet visited these banks, but as about 50 per cent of the fish proved to be mushy, but few of them made more than one trip. The schooner Zillah May operated an otter trawl in this region for several weeks with indifferent success. As the Albatross was withdrawn just when the weather was most propitious and returned to the work after the bad weather had set in the work was not finished, and we hope that nothing will be allowed to interfere with its completion next year. The investigation should also be extended down the coast as far at least as San Francisco.

Wm. Calvert, of the San Juan Fishing & Packing Co., who has given the matter much thought and attention, states that for a number of years mariners and fishermen have been reporting facts and incidents which seem to indicate the probable existence of banks off the northwest coast. In his opinion the movement of halibut on the Flattery bank is the strongest indication of the existence of such banks. Boats fishing on the westward edge of Flattery report that schools of plump, fine fish frequently appear on the bank, take the hook readily for a few days, and then disappear, to be succeeded by another school in a day or two. As vessels fishing on the eastern side of the bank do not generally encounter these particular schools, at least not until later than those on the western edge, while vessels fishing off Vancouver Island rarely find halibut in abundance, the fish must either come from the west, northwest or south. The Albatross investigations show that the halibut do not work north from the banks off Oregon, thus leaving only the west and northwest

as the probable route. As halibut have never been found in abundance on the banks off the Alaska peninsula and the Aleutian chain, lying northwest of Flatery, these banks assuredly could not be the home of the schools which visit Flatery in summer.

All the evidence now available, according to Mr. Calvert, points to the strong probability of the fish coming from unknown banks which lie from 150 to 1,000 miles west of our coast.

It would be a comparatively easy matter for the Albatross to determine this matter conclusively in a summer's cruise, and it is to be hoped that the U. S. Bureau of Fisheries will see its way clear to settle the matter once and for all by detailing the vessel for this purpose.

While minor accidents to the fleet were numerous, but few serious ones occurred. In February the power schooner Alice, of Port Townsend, 7—FISH ANL 1-26 cce Wash., was wrecked in Southeast Alaska and became a total loss. On April 26 the power schooner Montana, of Seattle, while at anchor near Sitka, Alaska, caught fire and was sunk to prevent her total destruction. Late in the fall she was raised and brought to Puget Sound for repairs. The power schooner Victoria, of Victoria, B. C., was wrecked and became a total loss in October. On April 3 the little Puget Sound schooner Prince Olaf was seized by the Canadian authorities, charged with fishing inside the three mile limit.

The year saw the passing away of Capt. Andrew Weiding, of Seattle, who died in this city on August 19 from a fractured skull received on the 15th, when he was struck by an automobile. He was one of the principal organizers of the Weiding & Independent Fisheries Co., one of the leading fish concerns of the coast, and which after his retirement was reincorporated as the National Independent Fisheries Co. He left this company in 1913, and shortly

after bought the old revenue cutter Rush, which he was master and owner of at the time of his death.

LIST OF VANCOUVER HALIBUT VESSELS.

Rig	Name	Owner
S. S.	Celestial Empire...	C. F. Co., Ltd
Gas s.	Emma H....	Can. Fish. Co., Ltd.
S. S.	Flamingo....	Can. Fish. Co., Ltd.
Gas s.	Jessie.Crown Fish Mkt.,	Victoria
S. S.	Kingfisher....	New Eng. Fish Co
Gas s.	Knickerbocker....	New Eng. F. Co
S. S.	New England....	New Eng. Fish Co.
Gas s.	Pescawha....	Can. Fish. Co., Ltd

LIST OF STEVESTON, B. C., HALIBUT VESSELS.

Rig	Name	Owner
S. S.	Onward Ho....	Columbia C. S. Co.
S. S.	Roman.....	Columbia C. S. Co.
Gas s.	Trapp.....	H. J. Woodward, New Westminster

LIST OF PRINCE RUPERT HALIBUT VESSELS.

Rig	Name	Owner
S. S.	Andrew Kelly.....	.....Can. Fish & C. S. Co., Ltd.
Gas s.	Borealis....	Atlin Fisheries, Ltd.
Gas s.	Carlotta G. Cox....	Atlin Fish., Ltd.
S. S.	G. E. Foster.....	.....Can. Fish & C. S. Co., Ltd.
Gas s.	Grier Starrett.....	.....Can. Fish & C. S. Co., Ltd
S. S.	James Carruthers.....	.....G. W. Nickerson
Gas s.	Lord....	Can. F. & C. S. Co., Ltd.
Gas s.	Northern.....	G. W. Nickerson
Gas s.	Pandora.....	Wm. Selig
Gas s.	Reef.....	J. Calder
Gas s.	Chief Skugaid.....	.....Can. Fish & C. S. Co., Ltd
Gas s.	Chief Zibassa.....	.....Can. Fish. & C. S. Co., Ltd
Gas s.	Zorra.....	Can. F. & C. S. Co., Ltd

LIST OF HAYSFORT, B. C., HALIBUT VESSELS.

Rig	Name	Owner
Gas s.	Haysport No. 1.....	.....Skeena River Fisheries, Ltd.

Gas s. Haysport No. 2.....
.....Skeena River Fisheries, Ltd

MISCELLANEOUS SALT FISH SHIPPED FROM ALASKA, 1914.

Kinds—	Quantity	Value
Black cod	barrels 321	\$2,869
Halibut	pounds 131,293	4,149
Rock cod	barrels 1	10
Trout	barrels 1	16
Codfish tongues..	barrels 100	1,500
Total		\$8,544

ALASKA PICKLED FOOD HERRING, 1914.

Company and Location—	Bbls.
Alaska Codfish Co., Unga.....	60
Alaska Oil & Guano Co., Killisnoo..	107
Boye, Ross, Simeonofski Island....	500
Dahl, Conrad, Petersburg.....	240
Enger, Rasmus, Petersburg.....	500
Fish Cannery By-Products, Wards Cove	741
Halvorsen Bros., Southeast Alaska..	20
Hadland, Tom, Petersburg.....	200
Herbert, J. A., Seldovia.....	216
Howe, Alfred, Petersburg.....	140
Johnson, Jacob, Petersburg.....	800
Kildall Fish Co., Petersburg.....	127
Kippaslen, Wm. A., Seldovia.....	201
Larsen, Sam, Unga.....	18
Larsen, John, & Co., S. E. Alaska..	74
Marine Products Co., Petersburg...	155
Prince William Sound Fish Co., P. W. Sound	214
Salter, J., Seldovia.....	192
Scove Bros., Petersburg.....	450
Skog, E. L., Petersburg.....	446
Taku Canning & Cold Storage Co., Taku Harbor	8
Union Fish Co., Pirate Cove.....	130
Wesco Fish Co., Wesco.....	47
Miscellaneous	2,614
Total	8,196
Pack in 1913.....	3,462
Increase	4,734

HALIBUT ARRIVALS AT BRITISH COLUMBIA PORTS IN 1914.

MONTH	Vancouver	Steveston	Prince Rupert	Haysport	Victoria	TOTAL
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
January	57,500	.....	190,100	.....	.....	277,600
February	283,000	.....	555,000	.....	7,000	845,000
March	193,000	.....	171,500	.....	7,000	371,500
April	282,000	.....	669,000	66,000	15,000	1,032,000
May	1,088,000	.....	1,409,500	104,000	.....	2,601,500
June	1,211,000	240,000	1,401,500	87,000	.....	2,939,500
July	896,000	496,000	751,000	70,000	.....	2,213,500
August	1,498,000	241,000	721,000	52,000	.....	2,512,000
September	775,000	135,000	987,000	62,000	.....	1,959,000
October	267,000	260,000	541,500	23,000	.....	1,091,500
November	186,000	215,200	579,000	13,000	.....	993,200
December	102,000	130,000	766,000	.....	.....	998,000
Total.....	*6,868,500	1,717,200	8,742,100	477,000	23,000	17,833,800

* Includes 1,877,000 pounds landed by American vessels at this port.

MISCELLANEOUS FRESH FISHES SHIPPED FROM ALASKA ON REGULAR STEAMERS IN 1914.

MONTH	BLACK COD		SALMON		TROUT	
	Pounds	Value	Pounds	Value	Pounds	Value
January	8,800	\$ 792	1,200	\$ 120	.....	.....
February .....	.....	.....	6,000	600	.....	.....
March .....	.....	.....	24,720	2,374	.....	.....
April .....	.....	.....	188,330	17,508	5,800	\$ 335
May .....	.....	.....	538,719	41,405	48,775	3,319
June .....	.....	.....	584,595	41,687	12,230	567
July .....	.....	.....	167,330	10,315	1,250	62
August .....	.....	.....	106,210	7,443	6,750	248
September .....	.....	.....	251,300	13,441	.....	.....
October	3,000	180	2,900	157	.....	.....
November	500	30	5,000	320	.....	.....
December	*3,300	193	59,300	4,290	.....	.....
Total.....	15,600	1,195	1,935,664	139,620	74,805	4,531

* Includes 1,400 pounds of red snappers, valued at \$92.

Machine Composition

ARCHER LINOTYPING CO.

A. W. ARCHER, Manager

Room 500 Collins Building
518 Second Ave. SEATTLE

Phones: Main 3666; Elliott 1666

5355

Salt Fish Review

CODFISH.

The codfish industry began the year 1914 under most favorable auspices. The greater part of the catch of 1913 had been marketed at remunerative prices, the local domestic demand was in excellent condition, while the demand from the East and from the foreign markets, except Mexico, was good and continually increasing. The civil war which has raged in Mexico for many months has seriously curtailed our hitherto large shipments to that country.

Owing to the favorable outlook most of the companies increased their fleets with the result that the San Francisco fleet comprised 6 vessels as compared with 5 in 1913, while the Puget Sound fleet increased from 5 vessels in 1913 to 8 in 1914. Among the new vessels added to the fleet were the following: Schooner Azalea, by Matheson Fisheries Co., of Anacortes; schooner Wawona, by Robinson Fisheries Co., of Anacortes. The Union Fish Co., of San Francisco, outfitted the schooner Sequoia, which was the station tender until displaced by the new power schooner Golden State, as a fishing vessel. The Alaska Codfish Co., of San Francisco, which lost the schooners John D. Spreckles and William H. Dimond within a year's time, replaced them with the schooners Allen A. and Glendale. The former was used as a station tender and the latter as a fishing vessel. The Pacific Coast Codfish Co., of Seattle, added to its fleet by purchasing the schooner Maid of Orleans from the Matheson Fisheries Co., while the Northern Codfish Co., of Seattle, a new company, purchased the schooner Fortuna and sent her north.

On February 2, as the Alaska Codfish Company's schooner William H. Dimond was sailing north with a cargo of supplies for the company stations, she struck on Bird Island, one of the Shumagin group, and both vessel and cargo became a total loss.

The local fleet operating in Alaska was also changed somewhat. The Union Fish Co. replaced the power schooner Union Jack, which had been brought south and sold during the previous winter, with the new power schooner Pirate. Andrew Grosvold, of Sand Point, outfitted the schooner Letty, and operated her on the inshore banks during the summer.

The number of shore stations in Alaska was increased by one. A. Komedal, of Unga, having built and operated one near that town.

During the fishing season the weather proved quite stormy, and much tackle was lost by most of the vessels. Despite this handicap the vessels nearly all "wet their salt," with the result that the total catch was the greatest ever produced on the Pacific banks in one year.

The breaking out of the European war near the close of the fishing season completely altered the face of affairs. Owing to the derangement of the ordinary channels of commerce it was found difficult to make foreign

shipments, and doubly difficult to secure payment for same, owing to the accompanying breakdown of credit arrangements and the resulting lack of money in countries which formerly purchased considerable quantities from us. The widespread distress caused in most of these countries by the lack of foreign demand for their products also aided materially in cutting off the demand. As the same falling off in the demand had occurred in connection with the Atlantic cod fisheries, our East coast demand was also cut off.

Matters have been gradually adjusting themselves to the altered condition of affairs, and when the year closed conditions were looking much brighter both at home and abroad.

Being caught with such a large stock on hand may ultimately prove a blessing in disguise. Several of the companies are making strenuous efforts to extend their domestic market for boxed fish, and this, if successful, will provide an outlet for the surplus and prove an even more profitable market than our foreign trade.

The schooner Fortuna tried a novel experiment this year. A dozen small portable gasoline engines, suitable for use with the regular hand line dories, were taken north. These were furnished to the men, with the under-

standing that they were to be paid for out of their season's returns, the expectation being that by their use the men could make quicker, safer and more numerous trips from the anchored vessel to the nearby fishing spots. They did not prove very useful, however. The men did not understand their operation and most of them would not take care of them. Also, when the engines were attached to the dories their weight detracted considerably from the carrying capacity of it, while in slightly rough weather the dories would ship seas which speedily put the motors out of commission.

One of the most regrettable events of the year was the sudden passing away on November 29 of Charles P. Overton, vice-president and general manager of the Union Fish Company, at his home in San Francisco. Mr. Overton was one of the pioneers of the industry, having worked his way from the bottom to the top. He was not only one of the best posted men on the methods of the industry, but also had written much as to the early history of the fishery on this coast, and his loss will be keenly felt by all connected with it.

Late in the year announcement was made that Capt. J. A. Matheson, of Anacortes, had purchased the schoon-

1914—PACIFIC COAST CODFISH FLEET—1914

SAN FRANCISCO.

Owner	Vessel	Sailed	Arrived	Catch, Number
Union Fish Co.	Golden State*	Nov. 15, 1913	Jan. 15	170,000
Union Fish Co.	Golden State*	Mar. 5	April 20	200,000
Union Fish Co.	Golden State*	May 30	Aug. 4	199,000
Union Fish Co.	Golden State*	Oct. 15	Dec. 20	170,000
Union Fish Co.	Sequoia	Mar. 21	Sep. 9	152,000
Union Fish Co.	Galilee	Mar. 24	Sep. 12	108,000
Union Fish Co.	William H. Dimond	Mar. 17	Aug. 26	150,000
Alaska Codfish Co.	Vega	Jan. 9	Wrecked Feb. 2	.....
Alaska Codfish Co.	City of Papeete*	Oct. 7, 1913	Jan. 25	200,000
Alaska Codfish Co.	City of Papeete*	Oct. 18	Dec. 21	45,000
Alaska Codfish Co.	City of Papeete*	Mar. 23	Sep. 3	187,000
Alaska Codfish Co.	Allen A.*	Mar. 2	May 27	250,000
Alaska Codfish Co.	Allen A.*	June 23	Nov. 3	200,000
Alaska Codfish Co.	Glendale	Mar. 23	Sep. 6	175,202
Pacific States Trading Co.	Ottillie Fjord	Mar. 18	Sep. 3	121,000
Pacific States Trading Co.	Bertha Dolbeer*	Mar. 10	May 26	32,000
Pacific States Trading Co.	Bertha Dolbeer*	July 18	Oct. 1	42,000

PUGET SOUND.

Matheson Fisheries Co.	Azalea	April 6	Sep. 11	212,000
Matheson Fisheries Co.	Fanny Dutard	April 5	Sep. 15	172,000
Northern Codfish Co.	Fortuna	April 2	Sep. 8	96,000
Robinson Fisheries Co.	Alice	Mar. 25	Sep. 15	171,000
Robinson Fisheries Co.	Wawona	April 1	Sep. 11	240,000
Pacific Coast Codfish Co.	John A.	April 7	Sep. 13	100,000
Pacific Coast Codfish Co.	Chas. R. Wilson	April 2	Sep. 7	209,000
Pacific Coast Codfish Co.	Maid of Orleans	April 7	Sep. 13	52,000
Independent Stations	Regular vessels		Various dates	104,600

BRITISH COLUMBIA.

Canadian Fish & C. Stor. Co.	Albert Myer	Mar. 23	Sep. 9	125,000
------------------------------	-------------	---------	--------	---------

RECAPITULATION.

San Francisco fleet	2,439,202
Puget Sound fleet	1,358,600
British Columbia fleet	125,000
Total	3,922,802

* Cargo from Alaska shore stations.

ers Azalea and Fanny Dutard from the Matheson Fisheries Co. and would re-enter the business once more. Capt. Matheson sold out in 1913. He was the pioneer cod fisherman operating from Puget Sound, and he will be welcomed back into the fold once more. The selling of its fleet, and the disposal of its plants in Anacortes and Seattle will probably mark the passing of the Matheson Fisheries Company.

PACIFIC COAST CODFISH CATCH.

Year	No. Fish
1870	1,467,000
1871	926,000
1872	305,500
1873	563,000
1874	369,000
1875	362,000
1875	844,000
1877	857,000
1878	857,000
1879	1,499,000
1880	1,203,000
1881	1,061,000
1882	1,241,000
1883	1,720,000
1884	1,620,000
1885	1,374,000
1886	1,231,000
1887	1,129,000
1888	1,051,000
1889	816,000
1890	1,138,000
1891	1,220,000
1892	1,312,000
1893	1,216,000
1894	969,000
1895	1,014,000
1896	802,000
1897	1,740,000
1898	817,000
1899	1,377,000
1900	1,417,000
1901	1,504,000
1902	2,248,000
1903	2,177,000
1904	2,551,000
1905	3,652,000
1906	4,527,000
1907	3,012,000
1908	3,245,000
1909	2,460,000
1910	1,969,000
1911	2,793,000
1912	2,326,000
1913	2,425,357
1914	3,920,802

Total catch, 45 years..... 72,550,159
 Approximate value \$8,402,691

SALMON, ETC.

In every way the season of 1914 has proven much more satisfactory than that of 1913, despite the gloomy outlook at the beginning. The war proved no hindrance to the business—in fact, by temporarily cutting off our supplies of foreign herrings, it increased the demand for fat, well-packed American herring.

Salmon.—The low prices which prevailed for salted salmon in 1913 deterred a number of salters from putting up a full pack this year, with the result that the pack in Alaska was 9,206 barrels less than the year before, which was the most prolific ever known in our northern territory. The pack would have been even less had it not been for Bristol Bay having such a large run of Reds that it was found impossible to can them in the limited time, so the surplus had to be salted.

By far the greatest part of the catch comprises Red salmon. At one time Pinks formed a large part of the total, but the multiplicity of canneries in Southeast Alaska, where the Pink is most abundant, has created such a profitable market for the fish that the

1914—ALASKA SALT SALMON PACK—1914.

NAME	LOCATION	REDS		COHOES Whole fish	PINKS		KINGS Whole fish	TOTAL		
		White fish	Bellies		Whole fish	Bellies		Whole fish	Bellies	
Alaska Codfish Co.	Shumagin Islds.	100						100		
Alaska Co-op. Fish & P. Co.	Wrangell								75	
Alaska Packers Assn.	Bristol Bay	3,608						3,608		
Alaska Salmon Co.	Wood River	1,192						1,192		
Borch & Storch	Olivers Inlet			28				28		
Borg, Maggie	Shumagin Islands		11	14				25		
Bristol Bay Pack. Co.	Kvichak Bay	3,852						3,852	11	
Cole & Hamilton	Central Alaska		32					32		
Cook, C. W.	Central Alaska	139						139		
Dahl, Conrad	Petersburg			37				37		
Davis, John, & Co.	Metlakatla				75				75	
Erskine, W. J., & Co.	Kodiak	657	16					657	16	
Fidalgo Island P. Co.	Port Graham			20				20		
Grosvold, A.	Sand Point		17						17	
Holbrook Pack. Co.	Holbrook				1,050			1,050		
Kodiak Fisheries Co.	Kodiak		14					14		
Libby, McNeill & Libby	Various	2,629		37				2,666		
Mikkleson, L.	Abercrombie			904				904		
Naknek Pack. Co.	Naknek	1,130						1,130		
Nelson, Peter M.	Kvichak	4,400						4,400		
North Alaska Salmon Co.	Bristol Bay	4,500					141	4,641		
Olsen Brothers	Kvichak	3,000						3,000		
Ommundsen & Lindquist	Ozernoy	430		113				543		
Pac. Coast & Norway P. Co.	Petersburg			31	85		48	164		
Pacific States Trading Co.	Northwest Harbor	100					13	117		
Paul, Henry	Ketchikan							35		
Peterson, Louis	Ten Mile Creek			40				40		
Red Salmon Cann. Co.	Ugashik	276						276		
Shields, J. E.	Kuskokwim River	40	16					40	16	
Sommers, Pete	Petersburg			50	55			105		
Upheim, Chris	Coal Harbor								2	
Miscellaneous			110		100				210	
Total		27,003	172	405	1,190	175	48	229	28,875	347

* 300 pounds to barrel.

PACK OF SALTED SALMON IN ALASKA, 1868 TO 1914.

YEAR	SALMON		SALMON BELLIES		DRY-SALTED SALMON	
	Barrels	Value	Barrels	Value	Pounds	Value
1868	2,000	\$16,000				
1869	1,700	13,600				
1870	1,800	14,400				
1871	700	6,300				
1872	1,000	9,000				
1873	900	7,200				
1874	1,400	11,200				
1875	1,200	9,600				
1876	1,800	14,400				
1877	1,950	15,700				
1878	2,100	16,800				
1879	3,500	28,000				
1880	3,700	29,600				
1881	1,760	15,840	300	\$3,300		
1882	5,890	53,010				
1883	7,251	66,259				
1884	6,106	54,954				
1885	3,230	29,070				
1886	4,861	43,749				
1887	3,978	35,802				
1888	9,500	85,500				
1889	6,457	58,013				
1890	18,039	162,351				
1891	8,913	71,304				
1892	17,374	140,057	53	\$815		
1893	24,005	120,033				
1894	32,011	176,060				
1895	14,234	85,404				
1896	9,314	65,198	150	1,200		
1897	15,848	110,936	2,846	28,460		
1898	22,670	181,360	580	5,800		
1899	22,382	167,865	235	2,350		
1900	31,852	238,890	2,353	23,530	511,400	\$10,288
1901	24,477	171,339	652	3,816		
1902	30,384	212,688	328	2,952		
1903	27,921	223,368	3,667	32,973	200,000	5,500
1904	13,674	89,209	208	1,950	966,812	16,180
1905	19,071	143,811	1,360	11,355	7,280,234	115,643
1906	17,283	126,194	1,338	13,644	1,107,650	16,969
1907	22,307	203,127	2,965	37,422	107,550	1,505
1908	31,472	266,713	7,600	85,994	20,800	416
1909	28,443	183,400	1,970	25,358	71,600	1,038
1910	12,779	111,634	1,626	19,007	22,178	554
1911	8,317	101,726	1,337	15,561		
1912	34,602	305,928	37	606		
1913	37,881	272,726	451	6,523	121,282	1,235
1914	28,675	272,403	347	6,246		
Total	626,711	4,836,771	34,403	328,862	10,509,566	169,268

Miscellaneous Canned Fish

CANNED TUNA.

salteries have nearly all been driven out of business.

While prices ranged from \$7 to \$9 per barrel for Red salmon in 1913, from \$9.50 to \$12.50 was realized this year. Seattle early made a clean-up of its small stock, but San Francisco still has a considerable quantity on hand, which will doubtless be marketed before the new stock begins to arrive.

Bellies.—Since the federal government issued its order forbidding the packing of bellies unless the other edible parts of the fish are put to some economic use, but few have been packed in Alaska. Most of these are packed in central and western Alaska, where fox ranches and codfish stations furnish a market for the backs. Most of the bellies marketed are cut from the whole fish after they have been brought to the home ports. Some little market has been developed for the resulting strips.

Herring.—Herring were very abundant in Alaska this year, the fish appearing in places where they had not been seen for a number of year past. As a result a very large pack of salted food herring was prepared. The pack was 8,196 barrels. In 1913 the pack amounted to 3,462 barrels, thus showing a gain of 4,734 barrels for 1914. As usual, a proportion of the pack comprised thin fish taken late in the fall, and poorly prepared fish, and it was difficult to sell these at any price, but the fat, well cured fish sold at remunerative prices. The war, by cutting off temporarily the imports of foreign herring, very materially helped the sale of the best grade of Alaska herring, and if our packers will endeavor to continue the packing of the better grade alone, they will doubtless be able to hold a part at least of this trade.

Black Cod.—This fish is steadily growing in favor as time passes. For some years the only market for it was in the northwest and Alaska coast towns, but of recent years the demand for it has spread to the interior towns. The pack prepared in Alaska almost doubled that put up in 1913, despite the fact that large quantities were marketed in a fresh and frozen condition.

The tuna canning season just closed witnessed many ups and downs in its course. All the companies that operated in 1913 made big preparations for this year, while several new plants were started. The catch did not come up to expectations, however, despite the fact that it was nearly three times larger than in 1913. A much larger pack would have been made had not the fish disappeared early in October instead of, as usual, late in November or early in December. Most of the canneries early gave up hopes of catching any more and closed down about November 1. A few fish appeared late in November, but soon disappeared again.

Owing to the disappearance of the tuna late in the year the canneries are generally shut down until late in the following spring when the fish reappear in numbers. Some packers have contended that the fish are in deep water farther out in the ocean, and this year the U. S. Bureau of Fisheries assigned a man to the task of tracing their movements. Owing to the lack of an appropriation that would enable the bureau to put the Albatross in the field, the deep sea portion of the investigation had to be postponed until a more propitious time. Some thousands of tuna were tagged and the fishermen asked to report when and where they caught these fish, in order that their movements might be traced. Nothing definite along this line has yet been established.

As up to this season only the white meat of the tuna was canned, the dark meat being sold to the local fertilizer plants, this meant a considerable waste of a good food product. This season several of the plants began to pack the dark meat by itself and also mixed with the white. A line of salad and sandwich tuna, made of the small pieces which were formerly rejected, is also now being packed.

Believing that the tuna when not at the surface go to the bottom or intermediate depths, the Van Camp Sea Food Company experimented in the fall with a large purse seine. Owing to the vessel not being properly equipped to handle by power such a large seine as was used, the experiment was

not successful, but it is the company's intention to continue the experiments.

A Tuna Exchange, composed of most of the concerns operating canneries, was formed late in the season and has opened offices at San Pedro. It was organized to supply all the canneries with fish and finance fishermen who desire to build or buy new boats and nets, and make payment in fish. Hereafter no contracts will be made by the packers with individual fishermen, all this being attended to by the exchange.

On October 24 the San Pedro cannery of the Southern California Fish Co. was burned. This company, which was started originally to pack sardines, was the pioneer in the canning of tuna, the latter forming its principal business during the last three seasons.

The following companies operated this year:

- Los Angeles Tuna Canning Co., Long Beach.
- South Coast Canning Company, Long Beach.
- Pacific Tuna Canning Co., San Diego.
- Premier Packing Co., San Diego.
- Lower California Fisheries, San Diego.
- United Tuna Packers, Wilmington.
- Monarch Canning Co., Wilmington.
- Coast Fishing Company, Wilmington.
- Van Camp Sea Food Co., San Pedro.
- Southern California Fish Co., San Pedro.

White Star Canning Co., San Pedro.

The pack this year amounted to 124,000 cases (48 cans to the case) of 1-pound flats, and 186,000 cases (48 cans to the case) of ½-pound flats, or a total pack, reduced to a common basis of 18 pounds to the case, of 217,000 cases. In 1913 the pack amounted to 40,000 cases of 1-pound flat cans and 75,000 cases of ½-pound flat cans, which, when reduced to the same basis as noted above, amounted to a total pack of 77,500 cases.

CANNED CRABS.

A few canned crabs are prepared annually on this coast, but the industry has not thrived, owing to the cheap Japanese product with which our markets are flooded. The Greelford Packing Co., of Westport, Wash., and S. Elmore & Co., at Alsea, Oregon, packed a small quantity this year.

Keep This Number

You will need to consult it many times throughout the year. Keep it in your desk for ready reference.

1914—PACIFIC COAST CANNED SHAD PACK—1914

COMPANY.	CANNERY LOCATION.	1-lb. Talls	½-lb. Flats, 8 doz.	TOTAL Full cases.
Columbia River.				
Altoona Packing Co.	Altoona, Wash.	72	.....	72
Booth Fisheries Co.	Astoria, Ore.	330	.....	330
Columbia River Packers Association	Astoria, Ore.	1,023	.....	1,023
Pillar Rock Packing Co.	Pillar Rock, Wash.	1,545	*155	1,700
Warren Packing Co.	Cathlamet, Wash.	123	.....	123
Total Columbia River		3,093	155	3,248
Sacramento River.				
Sacramento River Packers Association	Pittsburg, Cal.	500	.....	500
Total Sacramento River		500	.....	500
Grand total		3,593	155	3,748

*Shad Roe.

CANNED MUSSELS.

The U. S. Bureau of Fisheries has been conducting an energetic campaign this year looking to the utilization of our immense mussel resources, which are now almost entirely neglected. As the Pacific Coast's answer to this campaign, H. E. Westbrook, who operates a salmon cannery at Smith River, in northern California, this year packed 1,500 cases of ½-pound cans (four dozen to the case). As these mussels were taken from the rocks bordering the open sea, far from any possible source of contamination, they are not subject to the prejudice that has existed against mussels taken from beds near large centers of population. The canned mussels are of good size, comparing favorably with medium and large-sized oysters, and preserve in the canned state the full flavor and nutritive value of the fresh mussel.

CANNED SHAD.

The packers of canned shad made no particular effort to increase their output this year, and it was just as well that they did not, as the depression in business throughout the South, due to the war temporarily shutting off their market for the sale of cotton, caused a falling off in the demand for the cheaper grades of fish, canned shad amongst the rest. As considerable cotton has been shipped to Europe during the last two months, business conditions in the South have improved very materially, and the demand for this grade of fish is much better at this writing.

CANNED SARDINES.

The canning of sardines on the Pa-

cific Coast is confined to the state of California, there being two plants operated at Monterey and one at San Pedro. The latter burned down in the fall of the year but will soon be rebuilt. Its principal business was in the packing of tuna, but little attention being devoted to sardines. The pack this year was an excellent one and exceeds that of 1913 by 7,148 cases.

1914—Pack of Canned Sardines—1914.

Company and location—	1-lb. Ovals 4 doz.
Monterey Packing Co., Monterey, Cal.	58,000
Pacific Fish Co., New Monterey, Cal.	20,434
Southern California Fish Co., San Pedro	2,400
Total	80,834

CANNED TROUT.

But little attention was paid this year to the canning of trout in Alaska. The Midnight Sun Packing Co., which operates a cannery on Kotzebue Sound, packed 100 cases of 1-pound tall Dolly Vardens. It is probable that a more favorable demand could be created for this fish if they were packed in one and two-pound oval cans. In these containers the fish could be packed whole and thus would present a much more attractive appearance than when they are cut up and packed like salmon, as at present.

CANNED CLAMS.

One of the noteworthy features of the year has been the remarkable development noticeable in the canned clam industry on this coast. A num-

ber of new and important plants were built and operated this year for the first time, while a couple of old plants were reopened. Still other plants are now in course of construction and will be operated in 1915.

Pacific Coast canned clam products have now firmly established themselves in the favor of the consuming markets of this country, owing to the fact that the brands packed are being kept up to a very high standard.

A considerable quantity of clam nectar and juice was packed this year by one of the new companies, and is said to be meeting with a ready sale.

The greater part of the development in this industry has occurred in Washington and Oregon, but as the abundant supplies of raw material in Alaska become better known those waters will undoubtedly be resorted to by our packers.

The canned clam pack in 1914 amounted to 75,974 full cases, as compared with 69,040 in 1913 and 43,900 cases in 1912.

CANNED CLAMS.

Clams are packed and sold like oysters, by the net weight of the contents after the can is cut.

For illustration, there are No. 1 cans of clams which will cut out 8 ounces of clams, and No. 2 cans, which will cut out only the same weight.

They are packed of No. 1 size (containing 6 ounces, 8 ounces and 10 ounces), while the No. 2 size is packed to contain 6 ounces, 8 ounces, 10 ounces, 12 ounces or 16 ounces.

1914—PACIFIC COAST CANNED CLAM PACK—1914.

COMPANY	CANNERY LOCATION	CANNED CLAMS				NECTAR		JUICE	TOTAL Full Cases
		1-lb. Talls	2-lb. Talls	Gallon Talls	½-lb. Flat 8 doz.	In Bottles	1-lb. Flats	1-lb. Flats	
Alaska.									
Royden, W. H.	Petersburg	45							45
Total Alaska		45							45
Washington.									
Bugge Cannery Co.	Washington Harbor	1,160	3,700	600	300				5,760
Elmore Packing Co.	Aberdeen	5,900			1,550				7,450
Greelford Packing Co.	Westport	4,000							4,000
Kendall & Little †	Copalis	1,800							1,800
Knickerbocker Packing Co.	Port Angeles	Did not operate.							
Nahcotta Clam Packing Co. ‡	Nahcotta	2,200							2,200
North Pacific Sea Food Packing Co.	LaComer	675				1,267	372	230	2,553
Ocean Beach Cannery	Oxsterville	2,000							2,000
Pfeister Packing Co. ‡	Copalis	3,500							3,500
Sea Beach Packing Works	Aberdeen	6,036	300		1,160				6,814
Sea Beach Packing Works	Copalis	11,775	782		7,495				20,052
Solomon Packing Co.	North Cove	3,000	500		250				3,750
Superior Trading Co.	Queets	1,800							1,800
Total Washington		43,846	5,201	600	10,064	1,267	372	230	61,079
Oregon.									
Lighthouse Packing Co.	Warrenton	4,000	6,000						10,000
Asv. Sigurdson	Warrenton	2,000	1,500		750				4,250
Total Oregon		6,000	7,500		750				14,250
Grand total		49,891	12,701	600	10,814	1,267	372	372	75,974

* 100 bottles to the case.
 † Includes 115 cases of ½-lb. flats.
 ‡ Estimated.



Libby's

**Red
Alaska
Salmon**

The finest of the catch from the cold,
crystalline waters of the Alaskan Coast—
thoroughly and scientifically cooked
and sterilized.

**Libby, McNeill & Libby
Chicago**



Oil and Fertilizer Review

The year 1914 proved a fairly successful one for the fish fertilizer and oil industry of the Pacific Coast. While the industry in Alaska almost held its own, due largely to the starting up of a large new plant, there was a considerable decrease on Puget Sound, due to this season being the year of the smallest run of salmon during the quadrennial period. As the bi-yearly run of Humpbacks will occur in this region in 1915, the industry will then probably handle almost double the quantity of raw material that it did this season. The plants in California did a large business in the handling of tuna and sardine offal, and it was largely due to their efforts that the total quantity of fish meal and fertilizer is not less than in 1913.

Until recently all the plants merely prepared fertilizer and oil, but this year a considerable proportion of the raw material, after the oil was extracted, was made up into animal feed. The plants all sold this product to others, who, after mixing it with other ingredients, sold the prepared product to poultry and cattle raisers. It is said to make the best food of any for these animals.

The Fish Cannery's By-Products Company built a large plant at Ward's Cove, near Ketchikan, Alaska, during the summer. Contracts were made with a number of salmon canneries in that district whereby their offal was sold to this plant. The plant was completed at such a late date, however,

that but little offal had been utilized when the canneries shut down. The company plans to operate on a large scale during 1915, and hopes to be able to manufacture a number of by-products never before produced at a Pacific Coast plant.

The Monterey Packing Co., of Monterey, Cal., during the summer fitted up the gasoline schooner Newark as a floating fish reduction plant, the purpose being to handle the offal from the company's sardine plant and non-edible species found in that region. The products obtained comprised principally fish meal and oil.

By-Products from Kelp.—The outlook for this industry is a very bright one. The war has almost entirely cut off our supplies of potash from Germany, and as Pacific kelp contains potash in larger quantities than is found in kelp on other coasts, ultimately the extraction of this and other by-products will prove an important industry. Already there are several plants operating on the coast, while since the first of the year two new plants have been constructed on Puget Sound.

MARKET REVIEW.

Salmon Oil.—Pack last fall was reasonably good and everything has practically been sold, prices ranging about 4c to 4½c per pound. We have sold out all but about three cars and are holding at about 4c per pound.

Herring Oil.—Pack of herring oil has all been sold.

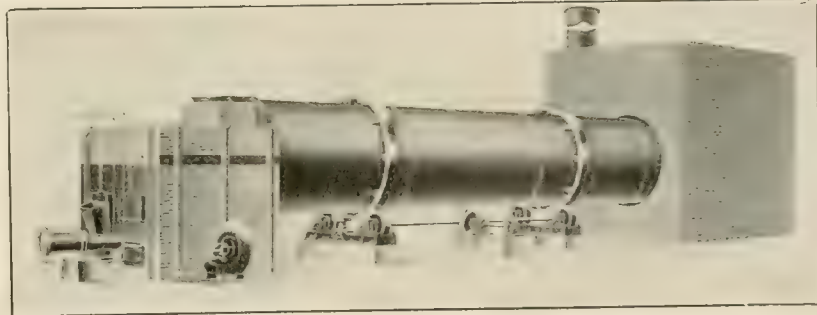
Whale Oil.—A few cars remain on this coast held at about the following values: No. 1 sperm at 39½c, No. 2 sperm at 34c, No. 3 sperm at 27c to 28½c. Stock represented above is about the only stock remaining unsold on the coast. It is understood the war has resulted in some depression in this line in Europe, and many a poor whale is likely to be shot under the impression that he is a submarine.

Fish Scrap.—At this season of the year only small lots are available—50 to 100 ton lots. The season of 1914 has been very good, prices holding pretty well around \$3 to \$3.25 per unit of ammonia, and about 10c for bone phosphate of lime, delivered California points. We have been able to obtain from \$1 to \$3 per ton over this basis as poultry food. The demand seems to be greater than the supply. Samples and prices on fish scrap from Japan indicate values slightly beyond what our people will pay.

Whale Meat and Blood, Whale Bone Meal.—The companies operating had a successful season and spot stocks, with the exception of possibly 200 tons bone meal, have been cleaned up. Values for this article run about as per above for fish scrap.

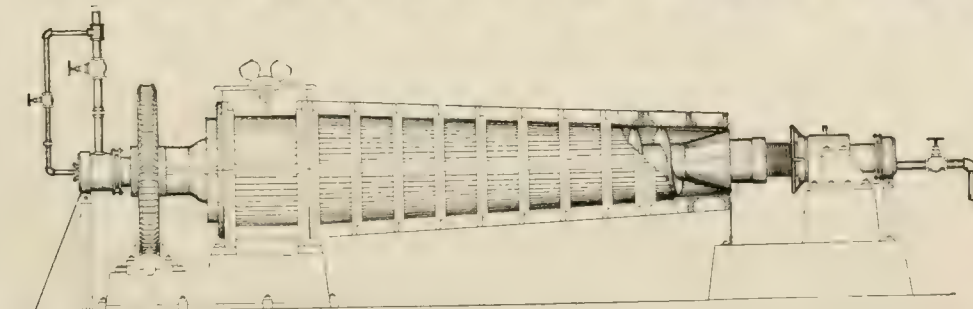
Blood and Tankage.—The companies operating have had a successful season and most of this product is contracted for in advance. Average price for tankage is about \$26 to \$27, and the blood \$46, from companies who prefer to sell this way. Others hold

Fish Fertilizer Machinery



Have equipped largest plants in the world
We furnish various sizes for any capacity

Cookers, Presses, Dryers



**American
Process
Co.**

New York
68 Williams St.

at about the unit of values mentioned on above.

Mineral Fertilizers.—Some phosphate rock has come into the coast now from Utah. Japan is offering potash. Two companies are developing the fertilizer and potash business from kelp. An engineer has inspected the field on atmospheric nitrogen, and all the ingredients for the successful inception of the complete fertilizer business, and now with cheap transportation to the Gulf and the Atlantic, it is quite possible some of this product can be delivered to the cotton fields of the South advantageously.

PHILIP J. BRADY.

WHALING.

If it were not for the shore whaling carried on in Alaska, British Columbia and Washington, the whaling industry of the Pacific Coast would be of very slight importance. For some years now, owing to the declining market for whalebone, the deep-sea fleet has been growing smaller and smaller. The SS. Gayhead was the only deep-sea whaler with the pursuit of whales as its primary object that cruised in the North Pacific, and she left her bones on the bleak shores of the Alaska Peninsula.

Shore Whaling.—In Alaska two shore whaling stations were operated—one at Akutan harbor, which was built during the spring, by the Pacific Sea Products Co., and the other at

Port Armstrong by the U. S. Whaling Co. Both stations met with fair success, although the breaking out of the war caused a falling off in the demand for whale oil. The Port Armstrong plant secured 155 whales, of which 43 were sperms, an unusually large proportion of this valuable species. The Akutan Harbor station secured 307 whales.

In British Columbia the Canadian North Pacific Fisheries, Ltd., operates four stations—Sechart, Kyuquot, Naden Harbor and Rose Harbor. It is reported that during the season these four stations caught 729 whales. Late in the fall the company went into the hands of a receiver.

In Washington the American Pacific Whaling Co. operates a station at Bay City. During the season this company handled 192 whales.

K. B. Birkeland, of the Pacific Sea Products Co., made some experiments this year at the company's station in the preparation of leather from the stomach wall, intestines and lungs of whales. A number of grades of leather were prepared from the different parts, and it is probable that the company will engage in the business on a considerable scale the coming season.

Deep Sea Whaling.—During the year the following vessels operated in deep-sea whaling, mainly in the Arctic Ocean; SS. Gayhead, SS. Herman, and brig Jeanette, from San Francisco, and the SS. Belvedere and gas sch. Polar

Bear from Seattle. The vessels visiting the Arctic did so mainly for trading purposes, but caught incidentally 22 whales, the Jeanette obtaining 3, the Herman 6, the Polar Bear 8, and the Belvedere 5 whales. The bone obtained amounted to 32,894½ pounds.

The SS. Gayhead cruised mainly for sperms, and early in July reached the Alaska coast, where she was driven ashore in Chignik Bay. The vessel proved a total loss, but 1,785 gallons of sperm oil was saved.

Beluga.—Considerable interest is now being manifested in the beluga, or white whale. These animals are to be found in great abundance in certain waters along the Alaska coast. A couple of men caught a number of them in nets near Nome last summer. It is said that the blubber and flesh was preserved for dog food, while the hides were tanned. The hides make leather that is useful for a number of purposes.

TO ESTIMATE MINIMUM CARLOAD.

Weights of canned foods, carloads, Eastern roads, 36,000 pounds.

Weights of canned foods, carloads, Pacific Coast roads, 40,000 pounds.

No. 1 Salmon, 4 dozen; weight per case, 67 pounds.

No. ½ Salmon, 4 dozen; weight per case, 38 pounds.

FISH OIL AND FERTILIZER COMPANIES OPERATING IN 1914.

Name—	Location	Products
Alaska Oil & Guano Company.....	Killsnoo, Alaska	Herring oil and fertilizer
Cannery's By-Products, Ltd.....	Ward's Cove, Alaska	Fish oil, meal and fertilizer
Columbia Fish Oil & Fertilizer Company.....	Columbia River	Fish oil and fertilizer.
DeForce Oil Works.....	Astoria, Ore.	Fish oil and fertilizer.
Japanese-American Fertilizer Company.....	Lummi Island, Wash.....	Fish oil and fertilizer.
Long Beach Fertilizer Company.....	Long Beach, Cal.....	Fish oil, meal and fertilizer
Monterey Packing Company.....	Monterey, Cal.....	Fish oil and poultry food
North Pacific Trading & Packing Company.....	Klawak, Alaska	Fish oil and fertilizer.
Pacific American Fisheries.....	Eliya Island, Wash.....	Fish oil and fertilizer.
Pacific Products Company.....	Port Townsend, Wash.....	Dogfish oil and fertilizer
Robinson Fisheries Company.....	Anacortes, Wash.....	Fish oil, fertilizer, glue.
Royden, W. H.....	Snow "Elhott," Alaska.....	Dogfish oil.
Russla Cement Company.....	Anacortes, Wash.....	Fish oil, fertilizer, glue
San Pedro Reduction Company.....	San Pedro, Cal.....	Fish oil and fertilizer.

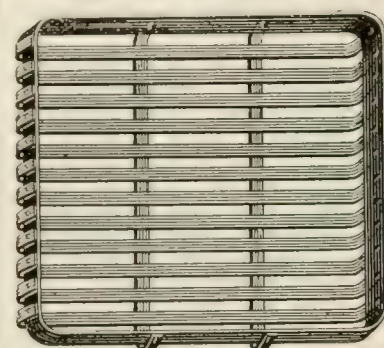
1914—PACIFIC COAST FISH BY-PRODUCTS—1914

DISTRICT	Plants	Fertilizer	Fish Meal	Oil	Stearine	Sizing
	No.	Tons	Tons	Gallons	Bbls.	or Glue Gallons
Alaska	4	634	414	225,476	215	.....
Puget Sound	5	963	170	135,578	.....	20,000
Columbia River	2	102	.....	22,800	.....	.....
California	3	400	700	100,000	.....	.....
Total.....	14	2,099	1,284	483,854	215	20,000

1914—PACIFIC COAST SHORE WHALING PRODUCTS—1914

DISTRICT.	STA-TIONS	WHALES	OIL		FERTI-LIZER	MEAL	WHALE-BONE
			Whale	Sperm			
	No.	No.	Gals.	Gals.	Tons.	Tons.	Pounds.
Alaska	2	505	650,680	113,150	442	194	2,800
British Columbia	4	729	840,920	15,000	1,200	487	10,000
Washington	1	192	260,230	.....	250	.....	3,000
Total.....	7	1,426	1,751,830	128,150	1,892	681	15,800

WE MAKE
COOLERS



STANDARD TYPE
Inside measurements: 37½x37½x3 inches; twelve slats, as shown in illustration.

SANITARY TYPE
Inside measurements: 37½x37½x5 inches, twelve slats; wide top band; protected corners.

Let us quote you prices on your requirements

Marine and Riggers' Blacksmithing
Anchor, Blocks and Derrick Fittings

ISAACSON CO. IRON WORKS
Foot of King Street SEATTLE

Look at This Book

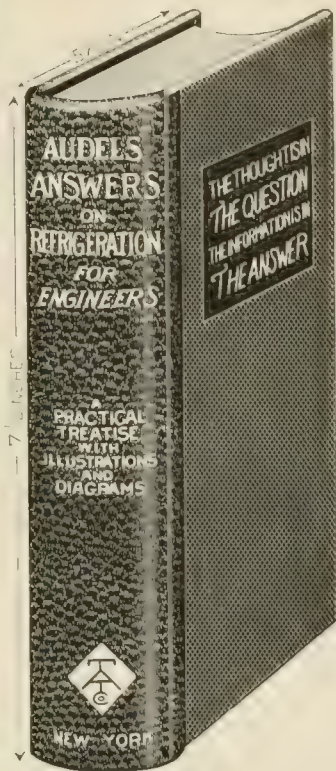
AUDELS ANSWERS ON REFRIGERATION will tell you in plain language all about the theory, construction, care and operation of an ice or refrigerating plant of any type or capacity.

The subjects are arranged in the convenient form of "Answers," thus giving in plain language information for successfully and economically operating a plant.

It gives the latest improvements in established applications on refrigeration; the practical handling of the machines and apparatus, together with useful and valuable data regarding the manufacture of ice; and the preservation of food products.

The 250 illustrations and descriptive diagrams (of which nearly 100 are full page) are explicit, and a valuable aid to a full comprehension of the science of refrigeration; contains 700 pages, durably bound in half leather, delivered to any address, price **\$2.00**

Free Examination



PACIFIC FISHERMAN, Seattle:
Kindly mail me copy of AUDELS ANSWERS ON REFRIGERATION, and if found satisfactory, I will immediately remit \$2.00 or return the book to you.
NAME.....
OCCUPATION.....
ADDRESS.....

N L S E C O

DIESEL ENGINES

(Adopted by U. S. Government)



P. A. F. "WARRIOR"—87½ x 17 x 7—Speed 10 Knots

Engined with 120 H. P. Nlseco Diesel --- fuel cost for season of 1000 hours less than \$200 ---a saving of \$2000

Sizes: 60, 90, 120, 180, 240, 360 to 2500 H. P.



ARTHUR FULLER, Pacific Coast Agent

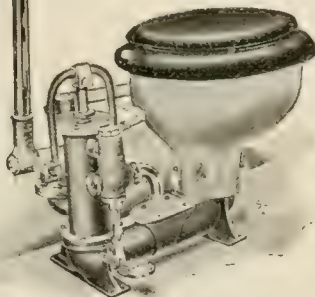
NEW LONDON SHIP & ENGINE CO.

68 Marion Street, Seattle, Wash., U. S. A.

Works: Groton, Conn.

"Sands" Marine Sanitary Fixtures

Showing a Few of Our PLUMBING FIXTURES and SPECIALTIES, Suitable for FISHING and WORK BOATS. All Are Guaranteed Without Reserve.



THE "FRISCO"—PLATE S-2046 (Design Patented—Copyrighted)

The "FRISCO" PUMP WATER CLOSET, extra heavy Vitro-Adamant Oval Hopper Bowl, rear outlet. Improved high grade "Sands" non-corrosive composition THREE (3) INCH combined supply and waste pump, composition on waste arm with check valve, "SANDS" Patent Automatic Safety Water Supply Foot Valve, "SANDS" Patent Back-Water Discharge Valve. All metal parts smoothed. Detachable N. P. metal handle with wood grip.

Plate S-2046 seat and cover **\$60**

Dimensions. Width 24", front to back 21", height 17½". Approximate weight: Net 80 lbs. Shipping 150 lbs.

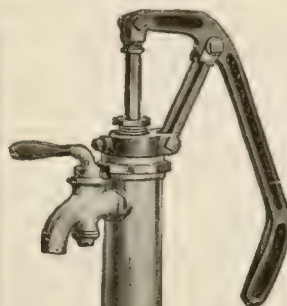


PLATE S-720.

Brass Galley Pump, galv. iron gearing.
2-in. Cylinder \$ 8.50
2½-in Cylinder \$13.50
Faucet and side outlet, add \$1.50.

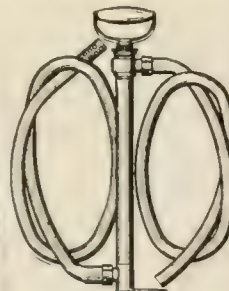


PLATE S-750-A.

New Style Double-Acting Brass Bilge Pump, with foot attachment and 5 feet discharge and suction hose with brass strainer.

No. 1—1½ diam., 15 long\$5.00
No. 2—1½ diam., 15 long\$6.50
No. 3—2 diam., 24 long\$14.00



"COMMERCIAL" PLATE S-2070. (Patented—Copyrighted)

PLATE S-2070—The "COMMERCIAL" Single Valve Water Closet, extra heavy Vitro-Adamant flushing r.m oval bowl, galvanized iron valve box, mounted on galvanized iron base plate. Composition quick opening supply flush valve with coupling for I. P. connection; galvanized iron operating lever, with composition axle and valve; oak seat and cover. N. P. brass post hinges.\$49.00

Net weight, 115 lbs.; shipping weight, 160 lbs. Space occupied 21 x 17". For use above water line only.

PLATE S-130.

The "Alton" Brass Supply or Inlet Connection has perforated strainer on suction side. Used for supply to closets, lavatories, engines and pumps.



PLATE S-131.

The "Carlton" Brass Outlet Connection with long nipple and flanged locknut to make up on inside.

Iron Pipe.....	¼-in.	1-in.	1½-in.
Lead Pipe.....	2.00	3.00	4.50

Iron Pipe.....	¾-in.	1-in.	1½-in.
Lead Pipe.....	2.00	2.50	4.25

Marine Plumbing Specialties

A. B. SANDS & SON COMPANY, Largest Mfrs. in the World

22-24 VESEY ST., NEW YORK, U. S. A.

We Are Specialists

In Supplying the Wants of the Fishing Industry

Our Entire Organization is composed of practical men in this particular line of business.

Our Department Heads have grown up with us. We have made no important change in the personnel of our staff in eight years.

This means to you service such as no other house can give.

Notice the Exceptionally Well Selected Lines of Merchandise:



Plymouth Cordage



The Standard Whereby All Others Are Judged

Our *APEX* Line of Specialties Now Include:

Apex Oars

Apex Purse Swivels

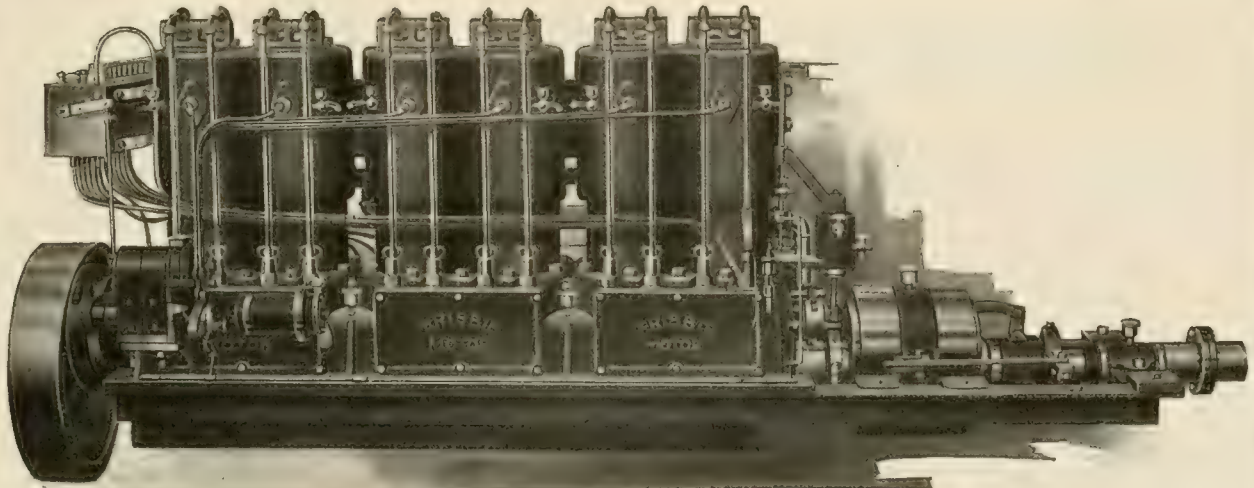
Apex Fish Trap Ringers

Apex Fire Extinguishers

Apex Net Needles, Etc.

See the Following Pages for Factory Brands
Handled Exclusively by Us

Pier 8—PACIFIC NET & TWINE COMPANY—Seattle



FRISBIE SIX CYLINDER MOTOR

The FRISBIE Is the Most Satisfactory Motor Made

There is a FRISBIE for every type of boat—and there are plenty of them on the Pacific Coast. You don't have to wait for one to be shipped from the east. You can get the FRISBIE you want right here on the Pacific Coast from a reliable agent whom you know.

Frisbie Motors are Made in the Following Sizes:

H. P.	No. of Cylinders	Bore	Stroke	Wt. with Reverse gear; lbs.
5	1	4¾	5	325
7	1	6	6	500
10	2	4¾	5	430
14	2	6	6	700
18	3	4¾	5	650
25	3	6	6	1,050
16	4	4	4½	500
30	4	4¾	5	725
40	4	6	6	1,200
50	6	4¾	5	985
75	6	6	6	1,600

Get Your FRISBIE From One of These Dealers:

Seattle, Wash.: Pacific Net & Twine Co., Pier 8.
 Portland, Ore.: The Beebe Co., 182-4-6 Morrison St.
 San Francisco, Cal.: Arthur B. Cameron, 23 California St.
 Los Angeles, Cal.: Hatfield Machinery Co., 306 East Third St.
 Vancouver, B. C.: Easthope Bros.

FRISBIE MOTOR COMPANY

Middletown, Conn.

The Yearly Losses From Rusty Cans, Peeled Lacquer, Spotted and "Eaten" Can Labels Are Enormous

As you well know, these losses are invariably due to the corrosive, lye-like properties of the agent used in your cleaning solution.

A Way to Save These Losses

We want every salmon packer and fish canner at their earliest opportunity to give

Wyandotte Fish Cannery's Cleaner

a thorough trial. This cleaner is made especially for the Fish Canner's use. It is free from caustic and other oxidizing properties, and with it you get

Bright, Clean, Unoxidized Cans

Wyandotte Fish Cannery's Cleaner provides that long sought remedy for blackened, oxidized cans. It cleans without leaving the slightest tarnish or injury and your cans come out with the natural lustre and gloss of untarnished tin.

With Wyandotte Fish Canner's Cleaner you can safely clean the can after processing, without injury to the lacquered tops and bottoms which are now coming into general use—this is but one indication of its non-corrosive nature, and its unlikeness to any other agent you have ever used.

TRADE MARK
Indian with drawn bow
and arrow



In Every Package

Write soon for Further Information

We should be pleased to have you write us at once for further information. Delay only means unnecessary loss. Wyandotte Fish Cannery's Cleaner is guaranteed to prove every claim made for it, and we urgently hope you will give us the privilege of shipping you a barrel. Prices on request.

THE PACIFIC NET & TWINE CO., Seattle, Wash.

SHIPMATES

COOK *and* HEAT
FOR THE NAUTICAL WORLD

TEN SIZES *and* THIRTEEN NUMBERS *of* RANGES



Seattle Agency,
Pacific Net & Twine
Company,
Pier 8,
Foot of Pike Street

THREE SIZES
of
HEATING STOVES



San Francisco Agency,
Holbrook, Merrill
& Stetson,
Sixth, Bluxome and
Townsend, Streets

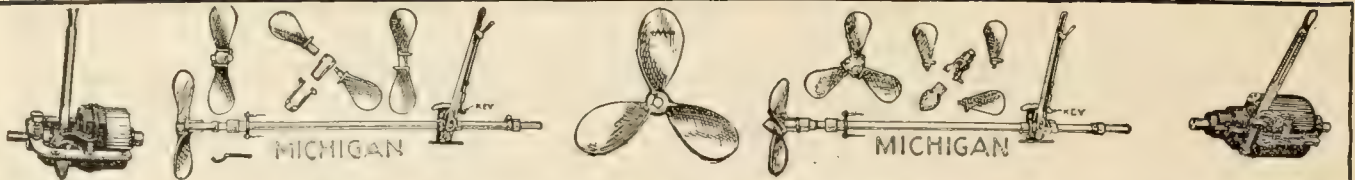


Portland Agency,
The Beebe
Company,
182-186 Morrison
Street



Made by
The Stamford Foundry Company, Stamford, Conn.

ESTABLISHED 1830



Special Notice

To Fishermen and Boat Owners on the Pacific Coast

We carry the largest stock of Reverse Gears, Propeller Wheels and motor boat supplies on the Coast and can always fill your wants immediately from stock.

We are the distributing agents for the famous Michigan Propeller Wheels and Reverse Gears, and can pick you out a Reverse Gear that will give you entire satisfaction in every respect, and a propeller wheel adapted for all classes of boats.

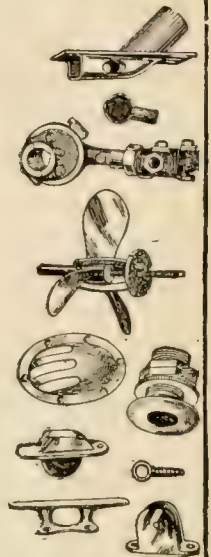
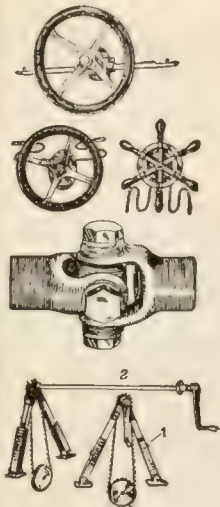
Call and see our stock, or write for our catalog, which is free.

PACIFIC NET & TWINE CO., Pier 8, Seattle, Wash.

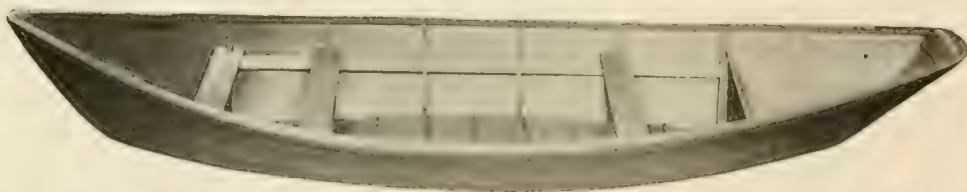
Distributing Agents for

Michigan Wheel Company

GRAND RAPIDS, MICH., U. S. A.



FISHING DORIES

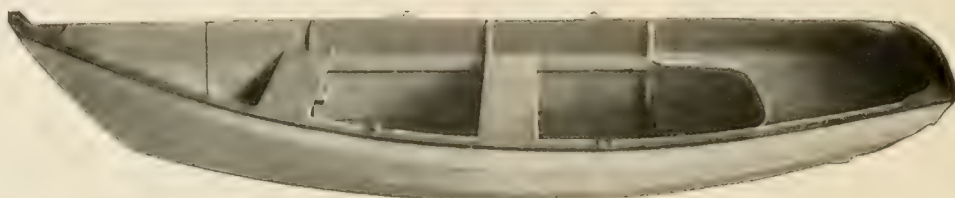


ALL SIZES IN STOCK

BEST ON THE MARKET

Oak Frames---SKIFFS---Pine Planks

10
and
12 Ft.



14
and
16 Ft.

SOMETHING NEW: EASTERN BUILT: VERY LIGHT AND SEAWORTHY: PRICE REASONABLE: SPECIALLY ADAPTED FOR TROLLING AND FOR LAUNCH TENDERS.

MADE BY

Hiram Lowell & Son, Amesbury, Mass.

FOR SALE BY

PACIFIC NET & TWINE CO.

PIER 8, SEATTLE, WASH.

The Story of the Can That Made Good



This is a one lb. tall salmon can manufactured by the sanitary process on a Seattle-Astoria Line.

The Can That Made Good was tested with a pneumatic pressure of 160 pounds to the square inch.



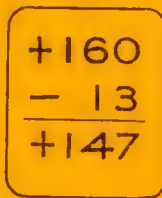
Here is the same can after having been subjected to an air pressure of 115 lbs. to the square inch.

Other tests show that salmon cans in the retort are subjected to a pressure of 13 pounds to the inch.



Note the ends of the can. The metal unable to withstand the tremendous air pressure has bulged.

The Can That Made Good was therefore 147 pounds stronger than was *just* necessary for the cooking.



Observe the seams however. They are not only intact as in the original picture but are still air tight.

This extra one hundred and forty lbs. means Strength, Safety and a Saving to the Salmon Packer.



Cans That Make Good Are Always Well Made by a Seattle-Astoria Line

SEATTLE-ASTORIA IRON WORKS

601 Myrtle Avenue, Seattle, Washington

Take South Park Car

SEATTLE-ASTORIA EQUIPMENT IN YOUR CAN FACTORY MEANS—

Good Cans

Cheaper Cans

Cans of Uniform Quality

Minimum Waste

Maximum Output

Absolute Independence

*NOTE: We sell our entire line of can forming
and closing machinery outright,—no strings
no contracts.*

SEATTLE-ASTORIA IRON WORKS

601 Myrtle Avenue, Seattle, Washington

Take South Park Car

Every Can Factory Has Two Vital Parts—

Body Former and Double Seamer

Our Body Former Is—

A high speed, smooth running machine, free from noise and vibration for making lock and lap seam can bodies especially for Sanitary Cans. Running speed 130 cans per minute. Seam is formed on bottom of horn, thereby eliminating necessity of a can turning device. Side seamer is very simple and effective. Solder is applied to the can from below by means of a Jensen solder roll. Solder wiping apparatus is provided. *Note arrangement for raising side seamer chains.*

The automatic feed is a positive success and has been used to replace a number of feeds on other machines. It can be stopped independently from the machine.

Changing the machine to different dimensions of can bodies is accomplished by means of a single right and left screw which controls the folder housings, folding steels, notching dies, feed bars and fingers. The entire mechanism is moved together, thereby maintaining perfect alignment. Each diameter of can requires a forming horn and pair of wings and a solder horn which are provided as extra attachments.

The machine has absolute register for notching, edging and locking the body



Seattle-Astoria Automatic Can Body Machine.



Troyer-Fox Double Seamer.

Our Double Seamer—

Is entirely automatic, has a capacity of 75 cans per minute. Has an automatic timing device for taking cans from a continuous running belt and feeding them into the machine without any attention or danger of jams. Tops or bottoms are placed positively by an improved feed. Makes a perfect double seam, putting bottoms on empty cans or tops on filled cans of any product packed in round cans. It is the fastest, simplest and most perfect working double seamer ever offered.

The first operation of the double seaming is performed on No. 1 spindle. The can is then carried automatically to the second spindle, where the final double seaming operation is completed. The can stands still during double seaming operations.

The main spindles are mounted on large ball bearings, insuring long life, perfect alignment and minimum friction. The capacity of this machine is ample to handle the cans from one Jensen filling machine and is interchangeable for all sizes 2½ to 4¼" diameter and 2 to 5¼" in height. The change can be made from one size to another in less than 30 minutes.

The second operation rolls have a yielding pressure on the seam to compensate for different thickness of metal.

Will run continuously all day without stopping to oil up

SEATTLE-ASTORIA IRON WORKS

601 Myrtle Avenue, Seattle, Washington

Take South Park Car

Announcement

A NEW MODEL OF THE
FAMOUS

Seattle - Astoria Sanitary Can Filling Machine

The accompanying illustration shows the new 1915 Model of the Seattle-Astoria can-filling machine for pound talls, with automatic salter attached.

All working parts are enclosed. The design of the machine is such that it can be readily cleaned with a hose without water getting into the working parts.

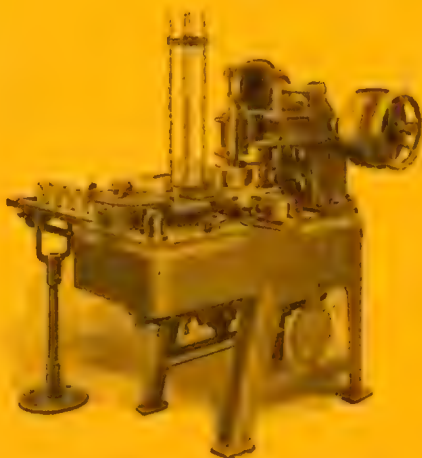
It is fitted with grease cups and owing to the new style drive is absolutely noiseless, and has a speed to 75-82 a minute.

The new model will do more work, better work and will last longer than the old style machine.



SANITARY CAN CLINCHER

Another Strong Point in Our Line



This machine is entirely automatic, has a capacity of 75 cans per minute. It has an automatic timing device for taking the cans from a continuous running belt and accurately feeding them into the machine without any attention or danger of jams. Mounted on the discharge side is a cover marking device for grading contents of can up to six different grades, and can be changed from one to another in a few seconds. The lower or base part is exactly the same as our double seamer, which makes all parts, such as cover feed, can feed turrets, etc., interchangeable between two machines. Considering reliability, it is the simplest, fastest and most perfect working clincher ever offered the canning trade.

The clincher head has six jaws for closing in the flanges of cover, made of hardened steel, with a groove the same shape as first operation seaming roll. The jaws are adjustable for closing in the cover more or less. The machine is interchangeable for all sizes, $2\frac{1}{2}$ to $4\frac{1}{4}$ " diameter and 2 to $5\frac{1}{4}$ " in height.

Will run continuously all day without stopping to oil up.

SEATTLE-ASTORIA IRON WORKS

601 Myrtle Avenue, Seattle, Washington

Take South Park Car

New England Fish Company

ORGANIZED 1868

INCORPORATED 1902

MAIN OFFICE: 44 BOSTON FISH PIER, BOSTON, MASS.

EASTERN BRANCHES: GLOUCESTER, MASS., PORTLAND, ME., AND NEW YORK

WESTERN HEADQUARTERS: VANCOUVER, CANADA

WESTERN BRANCHES: SEATTLE, PIER 6, FOOT UNIVERSITY STREET

PRINCE RUPERT, B. C. CHICAGO, ILL.

Ice and Cold Storage Plants:

KALAMA, WASH.
VANCOUVER, B. C.
KETCHIKAN, ALASKA

Subsidiary Companies:

THE CANADIAN FISHING CO., LTD.
THE DOTY FISH CO.
NORTHWESTERN FISHERIES CO.
ATLIN FISHERIES, LIMITED

Steamers:

KINGFISHER
MANHATTAN
NEW ENGLAND
FLAMINGO
CELESTIAL EMPIRE

Auxiliary Schooners:

KNICKERBOCKER
BAY STATE
PROSPECTOR
PESCAWHA
EMMA H.
CARLOTTA G. COX
BOREALIS
ZORRA

Wholesale Dealers and Distributers of

HALIBUT

FRESH and FROZEN

From Both Atlantic and Pacific

Producers of the Famous Belleanna Brand of Frozen Halibut from
Ketchikan, Alaska.

These fish are noted for their superior quality on account of being placed
in cold storage practically alive.

Our cold storage and fish plants are the most up to date and operated
under the best sanitary conditions.

We are the largest Producers and Shippers of Halibut in the United
States and Canada.

FISHER BROS. COMPANY

ASTORIA, OREGON

Sole Agents

Barbour and Finlayson Salmon Thread and Netting, Sharples Cream Separators, Starrett's Tools, Oliver Chilled Plows, Genasco Roofing, McCormick Harvesting Machines, Launch Supplies

Hardware, Groceries, Ship Chandlery

Tan Bark, Blue Stone, Welsh Coal Tar, Ash Oars, Oak Lumber, Pipe and Fittings, Brass Goods, Paints, Oils and Glass

Fishermen's Pure Manila Rope, Cotton Twine and Seine Web

WE WANT YOUR TRADE

Alaska Oil and Guano Co.

HEAD OFFICE:

Portland, Oregon

FACTORY:

Killisnoo, Alaska

Fish Oil

Fish Fertilizer

Salt Fish

Fresh Herring Bait

MARINE INSURANCE

Fireman's Fund Insurance Company

A Strong American Company With 50 Years' Successful Experience and the Great Insurance Company of the Pacific Coast.

LOSSES PAID PROMPTLY ON ADJUSTMENT

The Fireman's Fund has for years maintained a branch of its Marine Department in Seattle which is specially equipped for the handling of all shipments originating in Alaska and the Northwest.

For rates and policy conditions apply to

FRANK G. TAYLOR, General Agent

264 COLMAN BUILDING, SEATTLE.

The Dexter Horton National Bank

(OLDEST BANK IN WASHINGTON)

AND ITS ASSOCIATED INSTITUTION

Dexter Horton Trust and Savings Bank

offer to responsible people financial service complete in detail and of the highest character.

In calling your attention to the banking facilities offered by these two institutions, we would first remind you that a checking account here means safety for your money. It prevents mistakes and disputes, makes money handling convenient and assists you to establish a credit with the bank.

THE SAVINGS DEPARTMENT gives prompt and careful service to every customer. Four per cent interest, compounded semi-annually, is paid on savings accounts.

THE BOND DEPARTMENT is organized to buy bonds for the bank's own investments, and to offer a portion of these bonds from time to time to the bank's customers. Purchases are made only after the most rigid examination of legality and security.

THE TRUST DEPARTMENT assists in preparing you will, serving under same as executor, guardian or trustee; qualifies under appointment by the court for service as administrator, guardian, assignee or receiver; acts as trustee for corporate bond issues and endowments for individuals or associations and as agent for property; also handles escrows or any legitimate financial business.

Combined Resources Over \$17,000,000.00

Port Blakely Mill Company

LUMBER

MANUFACTURERS
CARGO SHIPPERS

A Specialty of

Alaska Shipments

PROMPT DELIVERIES

Local Representative Pier 3, Seattle, Wash.

Port Blakely, Wash.

UNION FISH COMPANY

Pacific Codfish

Nothing Else

137-141 Clay Street

136-140 Commercial Street

SAN FRANCISCO

Fire Insurance

Canners Exchange Subscribers

At Warner Inter-Insurance Bureau

1914 Savings \$143,000.00

Look for Annual Statement in an early issue of this paper

LANSING B. WARNER, INCORPORATED

ATTORNEY

ADVISORY COMMITTEE

FRANK VAN CAMP, Chairman,
San Pedro, Calif.

T. HERBERT SHRIVER,
Westminster, Md.

GEO. G. BAILEY, Treasurer,
Rome, New York.

WM. R. ROACH,
Hart, Mich.

LANSING B. WARNER, Secretary

L. A. SEARS,
Chillicothe, Ohio.

111 West Monroe Street, CHICAGO

A HELPFUL BANK

WHEN you deal with this bank you can rest assured that it is always ready to help you in doing that which is best for the growth and advancement of your interests along legitimate lines.

We offer a bank large enough to inspire the confidence of its customers, but not too large to give due consideration to the interests of every customer.

This bank is convenient to the wholesale and jobbing districts, hotels and stores. Your business is solicited.

4% Paid on Savings

First National Bank of Seattle

PIONEER PLACE

Oldest National Bank in Seattle

ESTABLISHED 1882

*Consultation, Plans, Specifications,
Supervision, of*
FISHING VESSELS
IN
WOOD AND STEEL

I can supply Cannery Tenders with improvements for handling fish which will effect a saving in time at the traps and cannery, and which will *eliminate the pitching of fish.*

M. C. ERISMANN
NAVAL ARCHITECT
COLMAN BUILDING
SEATTLE
Telephone Elliott 1355

TUCKER-HANFORD CO.
Label Manufacturers

Artistic Designs
Highest Quality of Workmanship

The Only Label Manufacturing Plant in the Northwest

QUICK SERVICE GUARANTEED

SEATTLE

- - - -

WASHINGTON

SCHWABACHER GOOD SERVICE WAY

SUPPLIES for the CANNERY, SALTERY
FISH TRAP and LAUNCH

DURANT CAN COUNTERS

COLONIAL SPECIAL FISH TRAP RINGERS

WOOLSEY'S COPPER PAINT

WHITE'S COOPERS TOOLS

A SELECT LINE OF STAPLE HARDWARE AND SUPPLIES HANDLED BY HIGH GRADE SPECIALTY MEN
IN EVERY DEPARTMENT INSURES YOU AGAINST ERRORS AND DISAPPOINTMENTS
IN MID-SEASON WHEN DELAY IS COSTLY.

REAL SERVICE, PROMPT SHIPMENTS AND COMPLETELY FILLED ORDERS ALWAYS

MAIL US YOUR ORDERS AND THEY WILL RECEIVE AS
PROMPT ATTENTION AS THOUGH BROUGHT IN.

SCHWABACHER HARDWARE COMPANY

FIRST AVE. SOUTH & JACKSON ST.

SEATTLE, WASHINGTON, U. S. A.

WE CARRY the largest and most complete stock of Groceries, including Cigars and Tobacco, on the Pacific Coast; and sell goods, quality and quantity being equal, as low as any house in the trade. ¶ Our facilities for the prompt handling of business are unequalled by any other house on the coast. ¶ We pay the most careful attention to MAIL ORDERS, thus guaranteeing you the same satisfaction as if purchasing in person.

Schwabacher Bros. & Co., Inc. - Seattle, Wash.

SALMON BOXES

We have over two million feet of

Seasoned Spruce Box Lumber

in yard and will make prompt and early deliveries during
1915, of first class boxes to any cannery in Southeastern
Alaska.

Willson & Sylvester Mill Co., Inc.

Wrangell, Alaska

Western Cooperage Company

INCORPORATED



MANUFACTURERS OF



Barrels, Kegs, Casks

Tanks of Every Description

MILD CURE SALMON CASKS

Net Buoys — Location Buoys

We make Salmon and Herring Barrels Our Specialty, and are in position to take care of Large Orders for Spruce or Douglas Fir Barrels.

1327 Ewing Ave.

Seattle, Wash.

- TOO COLD FOR ME !

"WESTERN"
GUARANTEED

PERFECTLY DRY

ANHYDROUS AMMONIA

MANUFACTURED BY
THE WESTERN CHEMICAL MFG. CO. - DENVER, COLO.

CHEMICALLY PURE ACIDS AND AMMONIA : LIQUID CARBONIC ACID GAS : SULPHURIC MURIATIC & NITRIC ACIDS.

To Those Who Wish the Best of Everything---AMMONIA Included---

We need only say our ammonia can be had from the following Western Agents, who carry a full stock of our anhydrous ammonia at all times:

- | | |
|--------------------------------------|----------------|
| The Harris Ice Machine Works..... | Portland, Ore. |
| Armstrong Machinery Company..... | Spokane, Wash. |
| C. M. Fassett Company..... | Spokane, Wash. |
| R. G. Knox Company..... | San Francisco |
| Marshall & Stevens..... | San Francisco |
| Central Engineering & Supply Co..... | Los Angeles |

The Western Chemical Mfg. Co.,

Denver, Colo.

The Wannenwetsch SYSTEM

Up to Date Rendering Outfit

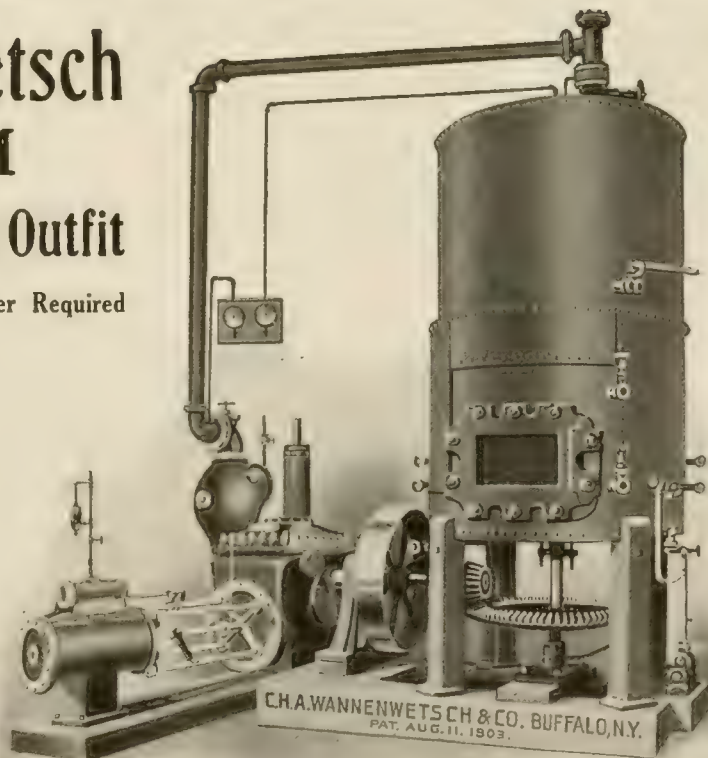
No Slush Boxes, Press or Separate Dryer Required

*Several hundred operated in the
United States and Foreign
Countries*

*Combination Sanitary Rendering
and Drying Apparatus for the
reduction of Fish, Fish Offal and
Animal Wastes*

Manufactured by
C. H. A. Wannenwetsch & Co.
BUFFALO, N. Y., U. S. A.

A. M. THOMAS
Pacific Coast Representative
PORT TOWNSEND, WASHINGTON



PATENTED

Thirty-Four Years is a Long Time—

for a vessel to withstand the strain of constant service, stress of weather and the elements of decay.

The Mary D. Hume, built 1881, by R. D. Hume, father of the salmon industry, has seen thirty-four years of active service as a cannery tender, an Arctic whaler, halibut schooner and tug.

In 1904, eleven years ago, she ran ashore near Nushagak and was abandoned as a total loss. When floated she proved undamaged and is today plying out of Everett, Washington.

The Mary D. Hume was built of

PORT ORFORD CEDAR

Strong Elastic Light Long Lived

IDEAL FOR SMALL BOAT CONSTRUCTION

For Sale in the Northwest by

EHRlich-HARRISON COMPANY

Railroad Ave. and Connecticut St.
SEATTLE, WASH.

HARDWOOD SPECIALISTS

Portland Cordage Company

—MANUFACTURERS—

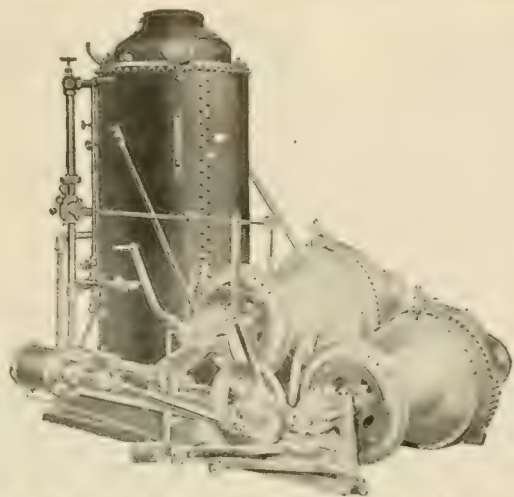
Soft Laid Pure Manila Rope

Both Steam Tarred and Untarred

—FOR—

Fishing Purposes

Seattle - - - - - Washington



Lidgerwood Hoists

STEAM, ELECTRIC and GASOLINE
FOR

Pile Driving - Derrick Work - Cargo Handling and
General Hoisting Service

Engines Built on a Duplicate Part System, Insuring
Immediate Repairs.
We Carry Stock at Seattle.

More than 37,000 Hoists Built and Used.

LIDGERWOOD MFG. CO., Seattle
New York Chicago Pittsburg

Facilities for

Drydocking and Repairing

VESSELS OF ALL KINDS

Steel and Wooden
Scows,
Boilers, Engines,
Castings, Tanks,
Iron and Brass Founders,
Lumber Manufacturers

Seattle Construction & Dry Dock Co.

Railroad Avenue and Charles Street
SEATTLE, U. S. A.

E. F. RANDOLPH

G. BUTTERFIELD

WE NEED YOUR BUSINESS--YOU NEED OUR BOXES



OUR SPECIALTY:
**Pine Salmon
Boxes**

Also Spruce Boxes
of ALL Kinds

Strength, Manufacture,
Appearance Unexcelled



Phone Elliott 3523

405-6-7 Mutual Life Building

SEATTLE

Mason, Fenwick & Lawrence

PATENT LAWYERS, SOLICITORS AND EXPERTS

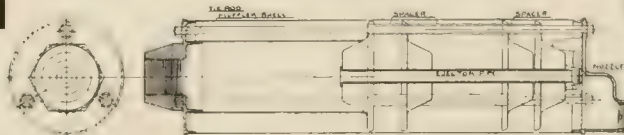
TRADE MARKS REGISTERED

USEFUL BOOKLET FREE ON REQUEST

References: Kelley-Clarke Co., Gorman & Co., J. K. Armsby Co., California Fruit Cannery Assn., Carlisle Packing Co., Premier Packing Co., Astoria and Puget Sound Packing Co., Miller Freeman, and many others.

EJECTOR MUFFLERS

THE STANDARD OF THE U. S. NAVY



EJECTOR MUFFLER
TYPE G
THE DUNKIRK CORPORATION
DUNKIRK, N. Y.

The New Type G Marine Muffler is Better and Cheaper than the older models which have stood the test of time.

THE DUNKIRK CORPORATION

DUNKIRK, N. Y.

BOLINDER MARINE FUEL OIL ENGINES

DIRECTLY REVERSIBLE
5-320 B. H. P.

Reversible Propeller Blades
5-65 B. H. P.

AGENTS

HENRY LUND & CO.

SEATTLE
420 Globe Building

SAN FRANCISCO
Marine Building

Ho, there!

Mr. Halibut Man, Mr. Cod Man,
Mr. Salmon Man

Look into the merits of our

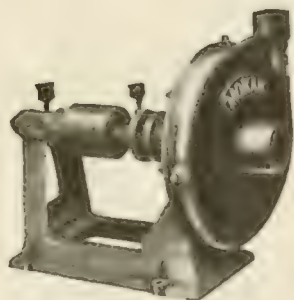
Lifting Machines

for your

Trawls, Gill Nets, Set Lines

Remarkable results for You
Write and ask Us

The Saunders-Chase Co.
PENTWATER, MICH.



Judge a Pump as You Would a Man

The quiet hard working man who is on the job all the time is worth more to you than the noisy one who is off sick every once in a while

The MORAN PUMP

is the quiet kind with large capacity that never breaks down. Ask the users. They are everywhere.

Write for new Bulletin

Made in Seattle by

MORAN ENGINEERING COMPANY

1220-22 First Ave. So.

SEATTLE

Booth Fisheries Co.

(Formerly CHLOPECK FISH CO.)

PRODUCERS AND SHIPPERS

Every Variety of Pacific Coast

FRESH, FROZEN, SALT
SMOKED and PICKLED

FISH

Cold Storage, Warehouse and Dock
Foot of Wall St.

SEATTLE, WASH.

PHONE: MAIN 2942

DISTRIBUTORS

Booth's Guaranteed Oysters



LABEL PASTES for CANNERS

TINNOL

The only strictly neutral Paste for labeling on tin. It sticks on lacquered or plain tin. It prevents rust spots. It does not affect the most delicate colors. It does not warp or wrinkle the paper. It keeps sweet in any weather. All ready for use as we ship it. Price, 50-gallon barrels, 37c per gallon; 25-gallon barrel, 40c per gallon.

ARABOL LABELING MACHINE PASTE

An adhesive of extraordinary merit. Much stronger than flour paste. Will keep in sweet condition for three months. Made especially for the KNAPP and MORRAL machines and all machines using flour paste. Price, 50-gallon barrel, 2 3/4 c per lb.; 25-gallon barrel, 3c per lb.

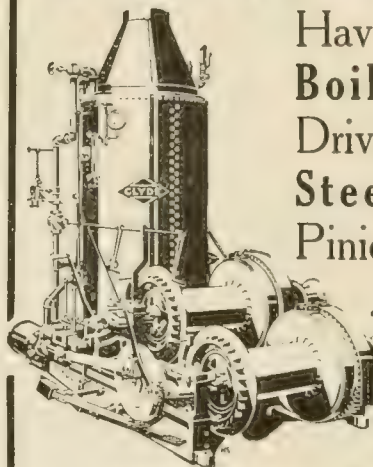
CONDENSED PASTE POWDER

One pound will make 2 gallons or 16 lbs. of pure white paste ready for use. Much better, stronger and smoother than flour paste. Made in 2 minutes with boiling water or live steam. No acids. Will not stain the most delicate paper. Makes 3 times more paste, pound for pound, than so-called cold water pastes. Can be used on KNAPP or other labeling machines, made up at the rate of 1 lb. powder to 8 or 10 lbs. of water. Price, 280-lb. barrels, 6c per lb.; 150-lb. barrels, 6 1/2 c per lb.

THE ARABOL M'F'G CO. :: New York, N. Y.

Clyde Hoists

Have Extra Large Boilers for Pile Driving and Cast Steel Gears and Pinions



"You'll find a Repeat Order built into every Hoist of Clyde-Grade"

— We have for Sale or Rent — Clam Shell and Orange Peel Buckets — either New or Second Hand.

Contractors Equipment Co.

PORTLAND
18th and Upshur

SEATTLE
522 First Av. So.

"Makers of MARINE PAINT for Half a Century"

OUR SPECIALTIES

NEW FISHERMAN COPPER PAINT

For Fish Trap Poles, Fish Nets and Twines. Mixes perfectly with Creosote Oil or Kerosene.

OLD STYLE COPPER PAINT, Brown and Red STEAMSHIP BLACK

BRONZE GREEN

For all Large Wooden Vessels, Barges, Etc.

YACHT COMPOSITE, Green and Red Anti-Fouling.

RACING YACHT COMPOSITE, Green and Red Anti-Fouling.

NEW BEDFORD COPPER BRONZE; Never fouls; never fails. Brilliant Green. Copper. Fire.

FLAT YACHT WHITE

GLOSS YACHT WHITE

IMPORTED GLOSS WHITE ENAMEL. Finest in the world.

MARINE ENGINE ENAMELS, 6 Colors

CRYSTAL GLOSS DECK and FLOOR PAINTS, 8 Colors

KIRBY SPAR VARNISH. Won't turn white

For Yachts and Motor Boats

Geo. Kirby Jr. Paint Co.

Importers and Manufacturers

NEW BEDFORD

MASS.

WRITE E. J. JUDGE

Clam Fillers Labeling Machines Box Making Machines Paste

Tagliabue Temperature Controls and Thermometers

E. J. JUDGE

268 Market St.

San Francisco

WRITE E. J. JUDGE

W
R
I
T
E
E
J
J
U
D
G
E

W
R
I
T
E
E
J
J
U
D
G
E

SELLERS OF:

Salt—All Grades

Tinplates

Pig Tin

Pig Lead

Caustic Soda

Cement

Fire Bricks

Cannery Supplies

Balfour, Guthrie & Co.

SEATTLE, WASH.

San Francisco, Portland, Tacoma and Vancouver, B. C.

Agents for

British & Foreign Marine Ins. Co., Ltd.

MARINE INSURANCE SOLICITED

BUYERS OF:

Wheat

Canned Salmon

Lumber

Fish Oil

Fertilizers

AMERICAN-HAWAIIAN STEAMSHIP CO.

THE PANAMA CANAL LINE

Regular Freight Service

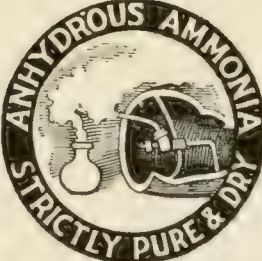
PUGET SOUND TO NEW YORK, PHILADELPHIA, BOSTON, CHARLESTON

C. K. MAGILL, Acting Agent,
710 Hoge Bldg.,
Seattle

**LARGEST AMERICAN FLEET IN OCEAN
TRADE**

LOADING PIERS
Stacy St. Terminals, Seattle
Eureka Dock, Tacoma

SOLE AMMONIA MANUFACTURERS ON THE PACIFIC COAST



PACIFIC AMMONIA and CHEMICAL COMPANY


MANUFACTURERS OF

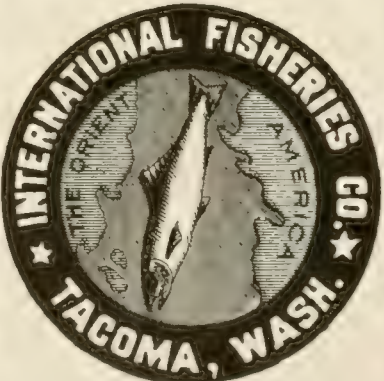
ANHYDROUS AMMONIA AND ACQUA AMMONIA

Seattle Office and Works
Cor. Blewett and Northlake Aves.—R. P. GREER, Manager.
San Francisco Office and Warehouse—340 Spear St.

Our Anhydrous Ammonia can be obtained from the following agencies

WASHINGTON	OREGON	BRITISH COLUMBIA
Ryan & Newton Co., Spokane, Washington	Oregon Transfer Company, 174 Glisan St., Portland, Ore.	The Vancouver Warehouse, Ltd., 552 Beatty St., Vancouver, B. C.
Frederick Beebe & Co., 2017 Pacific Ave., Tacoma, Wash.		The B. Wilson Co., Ltd., Victoria, B. C.





INTERNATIONAL FISHERIES COMPANY

Producers and Distributors of

Halibut - Salmon - Smelts

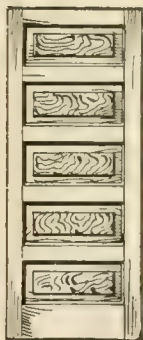
And All Varieties of Fresh Fish

Smoked and Pickled Fish

Send for Quotations

TACOMA, WASH.

Buy Sash and Doors Direct From Factory



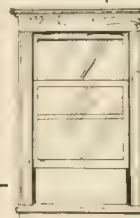
CANNERY MEN AND FISH PACKERS
can save from 25 to 50 per cent by buying building materials direct from us.

We own and operate the largest direct to consumer sash and door factory in the west. **WE** make immediate shipment and **GUARANTEE QUALITY.**

Our catalog will save you on building hardware, paints, oil, building paper, glass, etc. **WRITE FOR IT.**

PRICES FROM CATALOG.

5-cross panel doors.....	\$1.10
Same for painting.....	.90
12-light windows.....	.95
2-light windows.....	.76
Gold Seal roofing, roll.....	\$1.25 up
Inside door trim.....	.60
Inside door frames.....	.75
Window frames.....	1.00
Tarred felt.....	3c lb.
Complete 20-foot building front.....	\$27.00
4-light barn sash.....	.42



O. B. Williams Co. Sash and Doors
1943 First Ave. So. SEATTLE, WASH.

Write for Catalog 58

Canned Salmon Storage

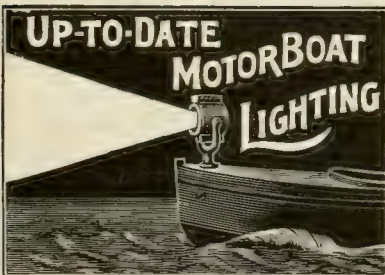
Handling 1,250,000 CASES Per Annum

Virginia St. Dock & Warehouse Co.

SEATTLE

Wharfingers and Warehousemen

Shippers Agents and Brokers



100% Efficiency

in any line of business is attained only after years of experience. Why spend your money to experiment for others when you can buy at the same price from an old established firm, magnetos and lighting outfits that have been tested and tried for years?

We are pioneers in the low tension, direct current magneto line. Sixteen years of experience is built into the **COMET MAGNETO** for stationary and marine engines. This same experience has enabled us to produce the **EUREKA LIGHTING OUTFIT**, a simple low-priced lighting outfit for motor boats and automobiles. When you want the best in any line, you go to the experienced expert. We are the experienced expert in magnetos and lighting outfits.

Full particulars will be found in our catalog, which will be sent on request.



The Comet

We are the manufacturers of the well-known Comet Magneto

HENRICKS MAGNETO & ELECTRIC CO. Formerly HENRICKS NOVELTY CO.

HOME OFFICE: 1200 ST. PAUL ST., INDIANAPOLIS, IND.

Branch Offices—136 Liberty St., New York City 409 S. 4th St., Minneapolis, Minn. 24 California St., San Francisco, Calif.

START THE SEASON RIGHT BY USING **SMACK COPPER PAINT**

ESPECIALLY ADAPTED TO ALL CLASSES OF FISHING VESSELS, SCOWS, BARGES, ETC.

SURE PROTECTION AGAINST TEREDOS, BARNACLES and GRASS

Manufactured by

VON HOVELING AMERICAN COMPOSITION CO., Ltd.

17 BATTERY PLACE, NEW YORK

PACIFIC COAST DISTRIBUTORS:

W. H. FIERSON & CO., 603 WESTERN AVE., Seattle, Wash.

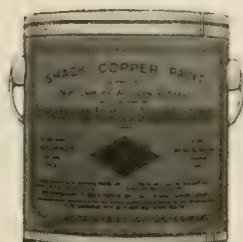
F. C. HAGEMANN & CO., PORTLAND, ORE.

J. & R. WILSON, SAN FRANCISCO, CAL.

ANTI-CORROSIVE

ANTI-FOULING

BEST FOR IRON AND STEEL VESSELS



IF YOUR DEALER CAN NOT SUPPLY YOU, NOTIFY OUR NEAREST AGENT

A COMPLETE STOCK

— of —

Hohmann & Maurer Instruments

Max Ams Double Seamers

Knapp Labeling Machines

Tackstick Paste and Gums

Hydraulic Presses and Accessories

General Canner's Supplies

**Always On Hand In
San Francisco**

Seattle

Los Angeles

BERGER & CARTER COMPANY

MACHINERY AND EQUIPMENT

— for the —

FOOD PRESERVING INDUSTRIES

Los Angeles

SAN FRANCISCO

Seattle

GEO. G. SUDDOCK, Northwest Representative, Hotel Seattle

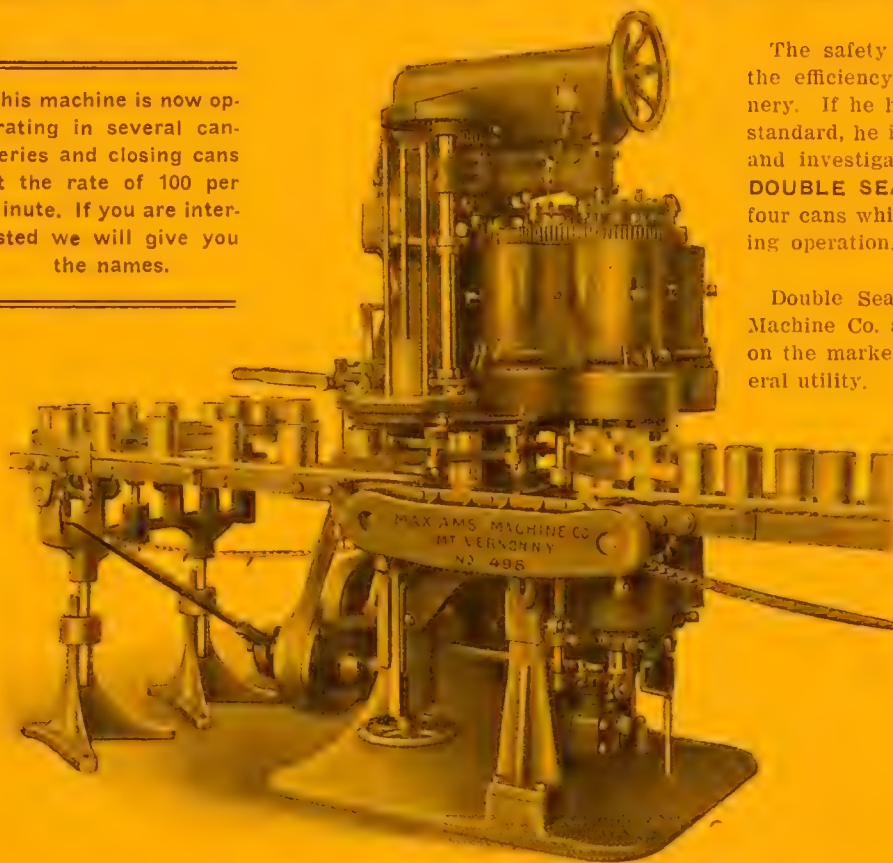
THE SEAL OF SAFETY

Salmon Packers

Four Double Seamers in One

100 Cans and upwards Per Minute

This machine is now operating in several canneries and closing cans at the rate of 100 per minute. If you are interested we will give you the names.



Ams No. 498 Double Seamer

The safety of the salmon packer lies in the efficiency of the machines in his cannery. If he has any that are not up to the standard, he is daily losing money. Be sure and investigate Ams new **QUADRUPLE DOUBLE SEAMER**. A machine that seals four cans which stand still during the seaming operation.

Double Seamers made by the Max Ams Machine Co. are not surpassed by anything on the market for speed, efficiency and general utility.

Salmon Packers can obtain these with or without clinchers, with or without automatic cover feed.

These Double Seamers have **EXCLUSIVE** features not to be found in other makes as follows:

The seaming rollers are adjusted on a seaming ring and there is a separate ring for each diameter of can, which means a quick change from one side to another.

The seaming rollers are reversible, which means double use.

Cans from 2-inch diameter up to 6 $\frac{1}{8}$ -inch diameter

and from 1 $\frac{5}{8}$ inches to 9 inches high can be sealed by these machines at the rate of more than 3,000 per hour, according to the size of can and the ability of the operator.

You save money by making your own cans. We'll show you how.

Canners should confer with us as to the most suitable equipment for a can-making plant. Send for our latest illustrated catalog.

Whenever it is possible to assist the canner we cheerfully do so. Our Eastern and Pacific Coast experts will render "Max Ams Service."

"Amscan" Sealing Fluid is used by the prominent can makers and assures hermetically tight double seamed cans.

Remember, We Today Furnish Complete "Can-Making Lines"

MAX AMS MACHINE COMPANY

CHAS. M. AMS, President
MOUNT VERNON, NEW YORK, U. S. A.

Selling Agents: BERGER & CARTER CO.
San Francisco, Seattle and Los Angeles

Superb Labeling Adhesives

TACKS' BRANDS FULFILL THE CANNERS' REQUIREMENTS
WHETHER LABELING IS DONE BY HAND OR MACHINE.



TACKS' COLD LABELING GUM NO. 127

Pickup Gum for use on Knapp and Hammond Machines.

TACKS' COLD LABELING GUM NO. 130

Pickup Gum for use on Burt Machines.

TACKS' HOT CEMENT NO. 87

Pickup Cement for use on Burt Machines.

TACKS' TACKSTICK

A condensed paste for hand labeling and lap-end of all machines.

TACKS' TIN PASTE NO. 15

For direct to tin, strip labeling, etc.

ALL COAST BUSINESS HANDLED BY

Berger & Carter Company

17th and Mississippi Streets, San Francisco, California.

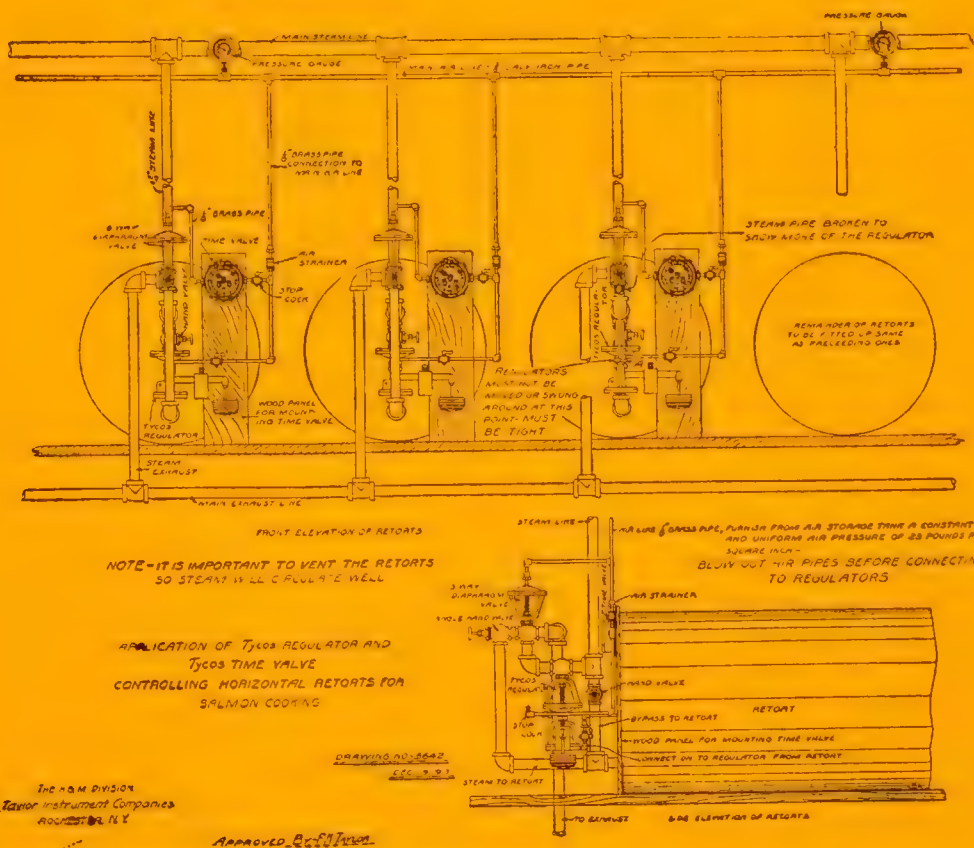
Northwestern Representative

GEORGE G. SUDDOCK, Seattle Hotel, Seattle, Wash.

Hohmann & Maurer Mfg. Co.

ROCHESTER, N. Y.

AUTOMATIC TEMPERATURE CONTROLLING APPARATUS
INDICATING THERMOMETERS
RECORDING THERMOMETERS



Every minute overcook, every pound of excess pressure means a loss—possibly a deterioration of product. Can you afford it?

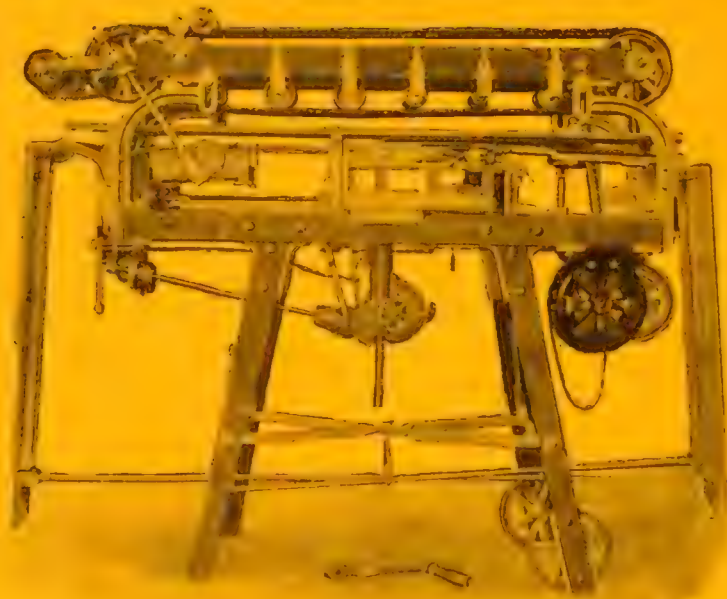
H. & M.—completely automatic, absolutely accurate temperature controlling apparatus; adaptable to the individual conditions of every canner, can be obtained from San Francisco stock. Special literature and complete information furnished on application.

BERGER & CARTER COMPANY

Seattle SAN FRANCISCO Los Angeles

GEO. G. SUDDOCK, Northwest Representative, Hotel Seattle

Knapp Labeling Machines



Completely Solve the Problem of Labeling Used Throughout the World

The Knapp Labeler is automatic throughout, possesses great speed and will work under all conditions found in Canning Plants and warehouses. This machine does neater work than any other method, is easy to operate and always ready for use.

Let us give you further information, also names of successful users.

Salmon Packers today use over ninety-five machines

THE FRED H. KNAPP COMPANY, Manufacturers
WESTMINSTER, MD.

BERGER & CARTER CO., Pacific Coast Dealers.

MR. GEO. G. SUDDOCK, Northwestern Representative,
Hotel Seattle, Seattle, Wash.

UNION
30 YEARS OF
ENGINEERING SUCCESS

Union Engines Give Longer Service Than Any Other Engines in the World

Hundreds of UNION engines over twenty years old are still giving faithful service every day.

These are not idle statements, they are facts that are substantiated by thousands of UNION owners and operators.

Consider the reasons for this remarkable service:

Design

UNION engines are carefully designed by engineers who built the first marine gas engine ever constructed in the world. The parts of our engines are proportioned to give maximum wearing service without unnecessary weight.

Inlet Manifold

For the use of gasoline as fuel any manifold will give fair results, but the proper use of distillate demands a heated intake pipe that will prevent liquid fuel entering the cylinders. The UNION patented exhaust heated inlet manifold has produced the only distillate engine that is practically as flexible as a steam engine.

Reverse Gear

One of the chief things to be considered in the purchase of a marine gas engine is the reverse gear. UNION engines are equipped with a spur gear reverse that is positively the strongest and most efficient reverse gear on any engine today. It has been successfully constructed to transmit 600 H. P., and has proved that in the matter of repairs and upkeep it is far ahead of the former bevel gear type of reverse.

Thrust Bearings

We have adopted the recommendations of the leading thrust bearing manufacturers in the world, and as a result, all three cylinder UNION engines of medium power are equipped with roller thrust bearings. Our experience has demonstrated that this type of bearing is the best for taking up the powerful thrust of a heavy duty engine. UNION open crosshead engines are equipped with hollow, water-cooled thrust blocks, designed in accordance with established marine steam engine practice.

Economy

The remarkable economy of UNION engines has been established beyond the question of a doubt by the performance of engines equipped with our exhaust heated inlet manifold. This device prevents any unburnt fuel passing through the engine, and insures maximum power with minimum fuel consumption — more power delivered to the propellor, less power wasted in the exhaust. Do not take our word for these statements; ask any UNION owner about his fuel bill, or write to us for copies of unsolicited letters.

30 YEARS OF PROGRESS

UNION GAS ENGINE COMPANY

LOS ANGELES
126 N. Los Angeles St.

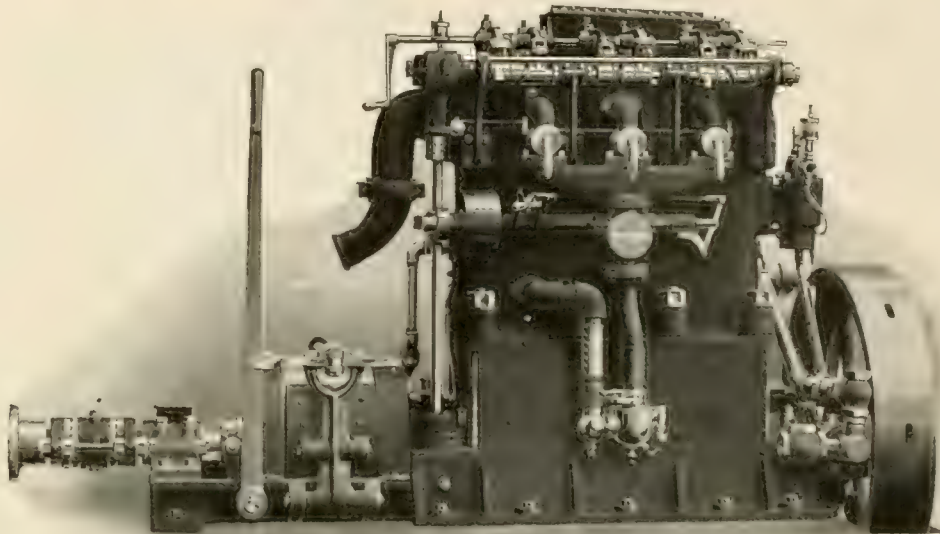
SAN FRANCISCO
503 Mission St.

SEATTLE
69 W. Columbia St.

Factory: Oakland Harbor, Oakland

IMPERIAL ENGINES

Illustration Beats Explanation



3 CYLINDER TYPE, 25, 35, 55, 75 AND 90 H. P.

- NOTE:** Planetary Type Reverse Gear (Will not heat up on backing)
 Gear Driven Governor (Will never slip)
 By-Pass for water circulation from cylinder head . . (Saves your cylinder)
 Ratchet Driven Force Feed Mechanical Oilier (Is positive)
 Schebler Carburetor (Develops more power)
 Ample Ball-Thrust Bearings (Will stand up)
 Slow-Down Apparatus (Saves fuel)
 Large Cams and Wide Rollers (Prolong life)
 Enclosed Base (For obvious reasons)
 Vertical Valves on top of the heads (Will not rust)

Insuring **LOW FUEL CONSUMPTION** and **ABSOLUTE DEPENDABILITY**

YOU CAN'T BEAT IT

ASK ANY OPERATOR

WRITE FOR CATALOGUE

Imperial Gas Engine Co.
SAN FRANCISCO, CAL.

DISTRIBUTORS AND AGENTS

Seattle, Wash.....Lewis, Anderson, Foard & Co., Pier 1
 Aberdeen, Wash.....Gus Lindberg
 Tacoma, Wash.....Jas. S. Reid, 2620 North 30th St.
 Vancouver, B. C.....Vancouver Ship Yard, Ltd.
 Astoria, Ore.....Zapf Furniture & Hardware Co.
 Marshfield, Ore.....Max Timmerman
 Killisnoo, Alaska.....Vincent Soboleff

Suva, Fiji.....Morris, Hedstrom, Ltd.
 San Pedro, Cal.....San Pedro Transportation Co.
 Los Angeles, Cal.....Frank A. Garbutt
 Sydney, N. S. W.....Nelson & Robertson
 Honolulu, T. H.....H. A. Peterson
 Mexico.....Hammer & Co., San Francisco

→ SERVICE ←



"Expansion," Largest Cannery Tender on the Pacific Coast. 112 ft. long, 24 ft. beam, 9 ft. depth of hold. Twin Screw Two 65 H. P. ATLAS Engines.

PACKERS OF
CANNED & PICKLED
SALMON

CABLE ADDRESS: NORDALASKA
A.B.C. & AMPSBY
CODES



NORTH ALASKA SALMON CO.

110 MARKET STREET.

SAN FRANCISCO Jan. 13, 1915.

Read what
the owners
say →

ATLAS GAS ENGINE CO., OAKLAND, CALIF.

Gentlemen:- Enclosed please find our order for two more "Atlas" engines for use at our canneries. We have at the present time 14 of your "Atlas" engines in use, totaling 578 H.P., and we are pleased to state that all are giving absolute satisfaction in every respect, and would especially mention the oldest ones of these, being the two 65 H.P. engines which you installed in our Schooner "Expansion" during March 1909. These engines have seen very severe service and have completed their 6th round trip from San Francisco to our canneries in Alaska, a distance of 3000 miles each way, usually consuming 15 days and nights continuous running, and during the five months stay each year in the northern waters, these engines have been running approximately eight hours per day, making a total mileage of 93,600 miles since these engines were installed. The amount of repairs to the "Expansion's" engines during these six years has consisted of one overhauling which was done two years ago at a cost of \$146.00, and we find these engines today in a first class condition, and on their last trip from Alaska the vessel beat all her previous records.

Yours truly,
NORTH ALASKA SALMON CO.

C. P. Hale

ATLAS GAS ENGINE COMPANY Main Office and Factory: OAKLAND, CALIFORNIA

REPRESENTATIVES:

SEATTLE, WASH.—O. E. Nilsen, Northwest Sales Mgr., Office and Salesroom: 901 Western Ave., cor. Marion St.

Nome, Alaska—John J. Sesson Co.
Ketchikan, Alaska—Ketchikan Iron Works.
Aberdeen, Wash.—Carl T. Nelson.
Astoria, Ore.—Atlas Gas Engine Agency, 509 Bond St.
Portland, Ore.—Bell Oil Co., 14 N. Front St.
Sacramento, Cal.—Nunes Bros., foot R St.

Stockton, Cal.—Stockton Iron Works.
Sydney, Australia—Atlas Oil Engine Co., 15 Market St.
New Orleans, La.—J. G. Davis, 1324 Music St.
Mexico City—Wm. Young & Co., La Calle de Gante No. 11.
Papeete, Tahiti—Emile Levy.
Honolulu, T. H.—Cotton, Neill & Co.

STANDARD-GAS-ENGINE-CO.

**INVITES YOU TO INSPECT
THE - LARGEST - DISPLAY - OF - GAS - ENGINES**

PANAMA - PACIFIC - INT'L - EXPOSITION

**“OPENS ON TIME”—FEB. 20, 1915
SAN FRANCISCO**

The Exposition launch concession is to be “STANDARD” equipped. :: :: “Standard” Engines received highest award “Alaska-Yukon-Pacific Exposition” held at Seattle, 1909

“MEET US AT THE LIGHTHOUSE”

LABELS and CARTONS

*"All isn't gold that glitters," but a glitter conveys
a better impression than a coat of rust.*



*An attractive lithographed label or carton
will not only catch the eye but it will let
prospective purchasers know that the canner
or packer thought enough of the quality of
his goods inside the can, carton or box to put
a high class covering on the outside.
Let us submit samples and prices.*

Schmidt Lithograph Co.

SAN FRANCISCO

LOS ANGELES · SEATTLE · PORTLAND · SALT LAKE CITY

Fish Packers' Supplies

PERKINS BOX CO., Gloucester, Mass.

TELEGRAPH ORDERS COLLECT

SHIPMENTS VIA PANAMA CANAL

H. L. Bennett Box Factory, Inc.

Fresh and Frozen Fish Boxes, Salmon Cases

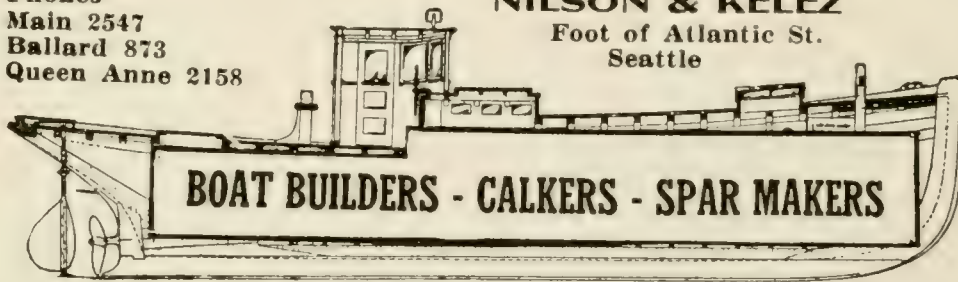
SEATTLE

J. T. ROBINSON, President and Manager

WASH.

Phones
Main 2547
Ballard 873
Queen Anne 2158

NILSON & KELEZ
Foot of Atlantic St.
Seattle



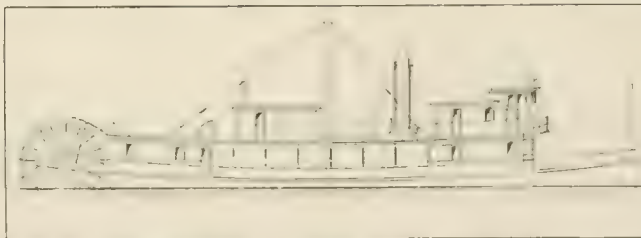
J. F. DUTHIE & CO.

Shipbuilders

Engineers

Boilermakers

BUILDERS
STEAM WHALERS
UNIMAK
KODIAK



BUILDERS
HALIBUT STEAMER
STABB
FERRY BOAT
LESCHI

NEW STERN WHEEL STEAMER K. L. AMES, NOW BUILDING AT OUR YARDS FOR THE NORTHWESTERN FISHERIES CO.

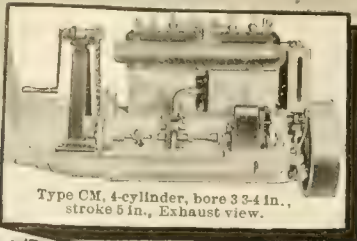
DESIGNERS AND BUILDERS OF
Steamships, Engines, Boilers, Pumps, Winches, and All Other Marine
Equipment

AGENTS FOR ROBERTS SAFETY WATER TUBE BOILERS

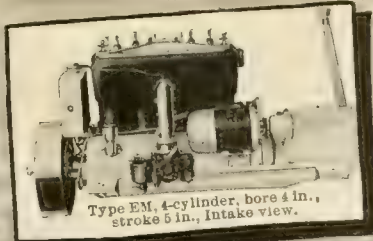
Shipyards Foot of Whatcom Avenue
Machine Shop West Connecticut Street

SEATTLE

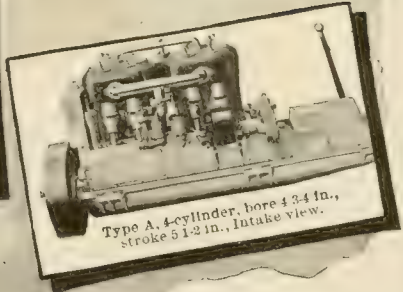
WASHINGTON



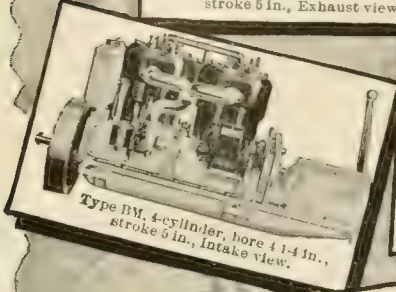
Type CM, 4-cylinder, bore 3 3/4 in., stroke 5 in., Exhaust view.



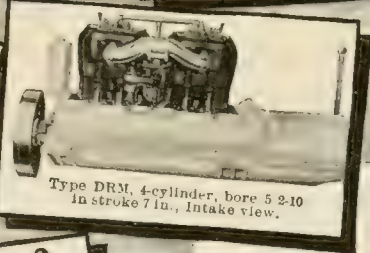
Type EM, 4-cylinder, bore 4 in., stroke 5 in., Intake view.



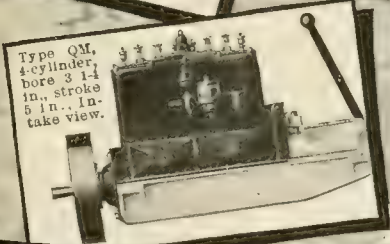
Type A, 4-cylinder, bore 4 3/4 in., stroke 5 1/2 in., Intake view.



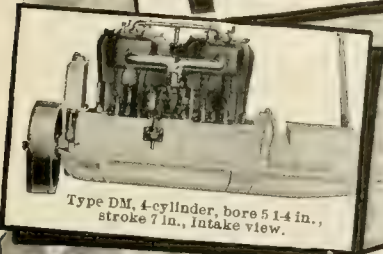
Type BM, 4-cylinder, bore 4 1/4 in., stroke 5 in., Intake view.



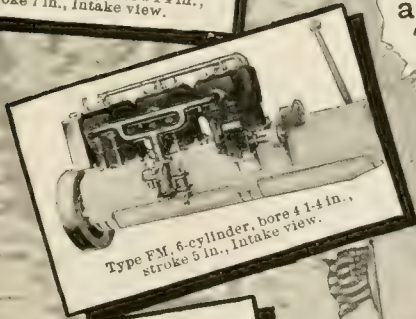
Type DRM, 4-cylinder, bore 5 2/10 in stroke 7 in., Intake view.



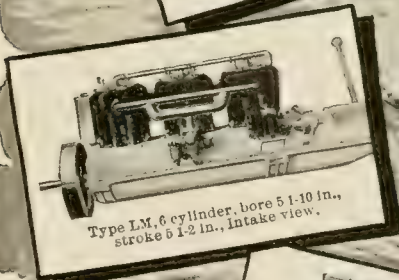
Type QM, 4-cylinder, bore 3 1/4 in., stroke 5 in., Intake view.



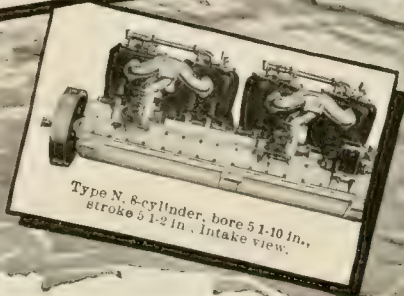
Type DM, 4-cylinder, bore 5 1/4 in., stroke 7 in., Intake view.



Type FM, 6-cylinder, bore 4 1/4 in., stroke 5 in., Intake view.



Type LM, 6 cylinder, bore 5 1/10 in., stroke 5 1/2 in., Intake view.



Type N, 8-cylinder, bore 5 1/10 in., stroke 5 1/2 in., Intake view.

"It's a Wisconsin"

When you say that, anyone who knows motors, or motor boats, or race records, knows you've got a power plant that's accessible, light in weight, smooth and quiet running, without vibration, and that at all times you've got plenty of power. That's why the man who has a Wisconsin Motor is glad to say so.

Wisconsin Motors

CONSISTENT

are the product of concentration and specialization. They are designed and constructed by men who do nothing else but design and construct motors and whose years of experience have made them masters of their craft. Correct design, perfect balance of all reciprocating parts, thorough and dependable lubrication, excellence of material and perfect workmanship, have placed Wisconsin Motors first with the man who knows.

Wisconsin Motor Mfg. Co.

Station A, Department 204
Milwaukee, Wis.

Your copy of the new catalog awaits your request.



F. E. Bigelow, President
A. E. Krebs, Auditor

A. W. Perry, Secretary
H. S. Green, Ass't Sec'y
J. C. McKown, Ass't Sec'y

50th ANNUAL STATEMENT

December 31st, 1914

ST. PAUL FIRE & MARINE INSURANCE COMPANY OF ST. PAUL, MINNESOTA

ASSETS		LIABILITIES	
Bonds at Market Value Dec. 31st..\$	6,897,172.34	Reserve for Unearned Premiums ..\$	5,233,618.10
Stocks at Market Value Dec. 31st..	272,500.00	Unadjusted Losses ..	578,441.27
Real Estate (Home		Reserve for Taxes	100,000.00
Office Building ....\$215,167.26)	248,396.30	Due Companies and Agents.....	33,752.40
Mortgage and Collateral Loans..	1,295,005.00	Capital Stock	\$1,000,000.00
Cash and Bank Deposits....	687,436.84	Net Surplus	3,216,643.07 4,216,643.07
Agent's Balances	651,574.37		
Dues from Re-insurance Co.'s Notes,			
etc.	34,392.08		
Accrued Interest	75,977.91		
	<hr/>		
	\$10,162,454.84		\$10,162,454.84

Net Premiums Written in 1914, \$6,604,982.51

Securities valued at market December 31, 1914, by Bond Houses of high standing. No advantage taken of the June 30th, 1914, valuations authorized by several State Insurance Departments.

ST. PAUL FIRE & MARINE INSURANCE COMPANY

GROWTH OF THE COMPANY IN PERIODS OF TEN YEARS

1865, Company Organized with \$75,000.00 Cash Capital

Jan. 1, 1870,	Total Assets, \$	285,246.52	Net Surplus, \$	32,865.44
" 1880,	" "	857,681.48	" "	166,375.01
" 1890,	" "	1,713,904.60	" "	510,697.88
" 1900,	" "	2,450,696.11	" "	664,367.71
" 1910,	" "	6,286,457.76	" "	1,641,624.42
" 1915,	" "	10,162,454.84	" "	3,216,643.07

Capital \$1,000,000

FIRE	INLAND TRANSIT	BAGGAGE
WIND STORM	TOURIST FLOATERS	TRAVELLERS SAMPLES
LIGHTNING	MERCHANDISE FLOATERS	MOTOR BOATS
HAIL	PACKAGES BY MAIL	REGISTERED MAIL
MARINE	AUTOMOBILE	SPRINKLER LEAKAGE

M. C. HARRISON & CO., General Agents, Marine Department
Merchants Exchange, San Francisco, Cal.

Transmission

Elevating and Conveying Machinery

Complete Stock:

Shafting

Drop Hangers

Mule Stands

Solid Iron Pulleys

Solid Set Collars

Detachable Chains

Rubber Belting

Leather, Belata
and Stitched
Canvas Belting

Quality



Flat "A-braced" arms (edge on) give perfect rigidity and least air resistance.

Grooved air escape improves belt contact yet the face is not weakened

Rim One thickness of steel Snugly socketed at the joints Combines lightness & durability

Tight clamping hub eliminates key way and set screw Fits different shafts by use of interchangeable bushings which are immovably fixed by interlocking device

Inside flange, to which ends of arms are riveted, secures extraordinary strength and trueness

No need to strip the shaft Fit two halves of pulley together, then tighten clamping bolts evenly

Arm rivets do not go through face with possible protrusion of rivets

Riveted bead on r.m. strengthens face at edge

AMERICAN STEEL SPLIT PULLEYS

All Sizes in Stock

Shaft Coupling

Jaw Couplings

Friction Clutches

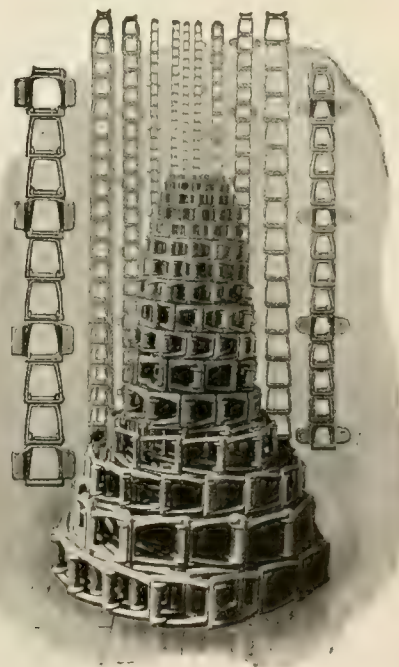
Split Iron Pulleys

Split Set Collars

Riveted Chain

Sprockets

Complete Trolley
Systems



Service

Satisfaction

BRINKLEY SUPPLY CO.

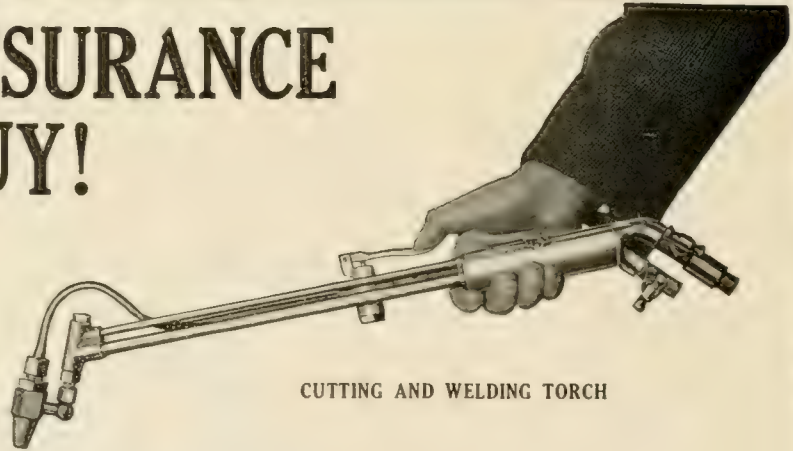
524 FIRST AVENUE SOUTH

Phone Elliott 187

SEATTLE, WASHINGTON

THE BEST INSURANCE YOU CAN BUY!

It gives you a new
kind of protection

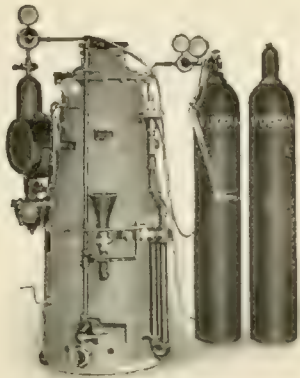


CUTTING AND WELDING TORCH

Mr. Salmon Packer:

You know what a break-down at the height of the packing season means to you.

Protect yourself against this loss of time in the future by installing an



STATIONARY WELDING OUTFIT
No. 3— Complete, ready to operate

Welds Any Metal

CAN BE OPERATED SUCCESSFULLY
BY ANY MECHANIC, BLACKSMITH OR
HANDY MAN.

FREE INSTRUCTION FOR YOUR MEN
AT OUR SEATTLE PLANT.

JUST THE THING FOR QUICKLY RE-
PAIRING BROKEN GAS ENGINES,
PULLEYS, LEVERS, GEAR WHEELS,
ENGINE BEDS AND FRAMES,
AND CANNING MACHINERY
OF ALL SORTS

For full particulars address

FERROFIX BRAZING COMPANY

816 First Avenue South

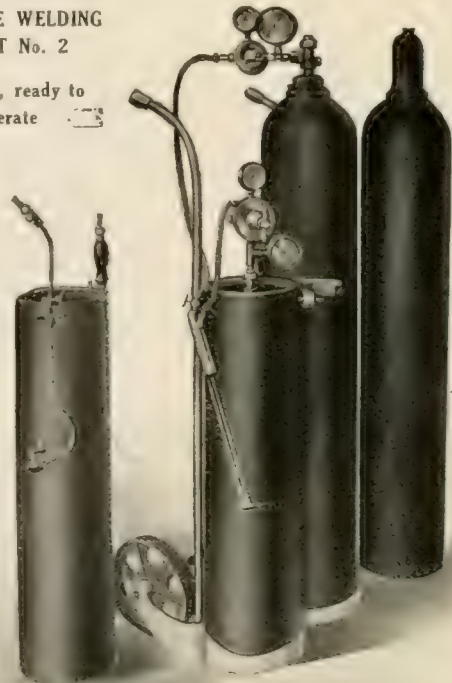
SEATTLE

OXYACETYLENE Welding and Cutting Outfit

THE COST IS TRIFLING—THE TIME SAVED
ON ONE JOB BUYS AN OUTFIT

PORTABLE WELDING
OUTFIT No. 2

Complete, ready to
operate



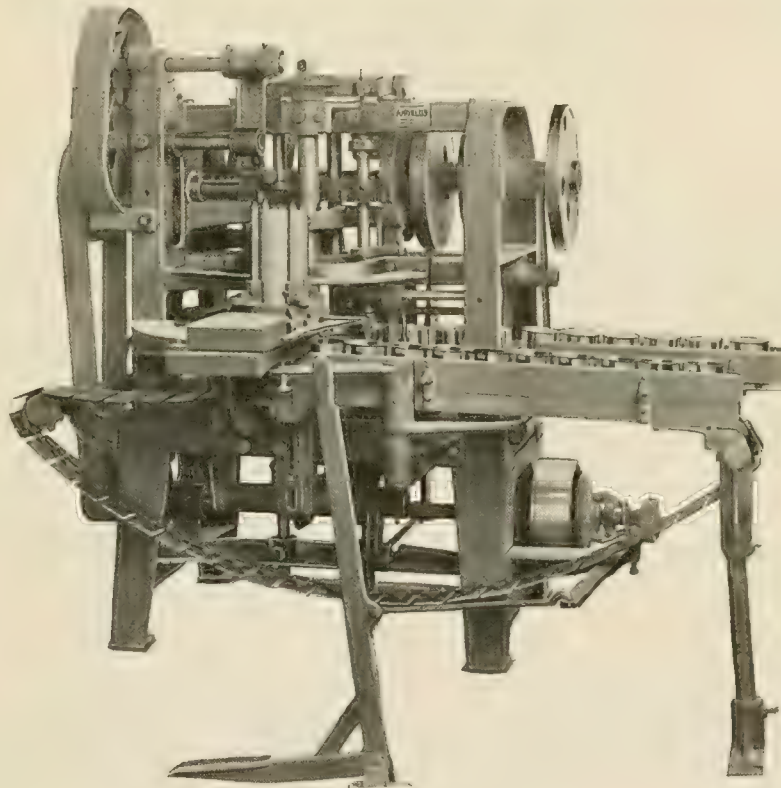
Perfect Double Seaming

AT 80 CANS PER MINUTE

ANGELUS TWO SPINDLE AUTOMATIC DOUBLE SEAMER

Built Also
 in
 Larger Style
 to Seal
 Gallon Cans

We are
 Builders
 of
 All Kinds
 of
 Can-Making
 Machinery



Adjustable
 for All
 Standard
 Sizes
 of Cans

Handles
 Cans
 up to
 4½ Inches
 in
 Diameter

PATENTED

You Will be Sealing Perfect Cans on the Same
 ANGELUS DOUBLE SEAMER Ten Years From Now

The can stands still during the first operation, is double seamed by two double seaming rolls, and revolves on the second operation spindle while being compressed.—The rolls are mounted on Ball Bearings, and will outlast any other on the market.—The only cost for upkeep and expense is for new rolls and chucks. These are made of high grade steel, hardened and ground.—As many as a million and a half cans have been sealed on one set of rolls, with perfect double seaming.—

Write us for a list of our customers and learn what the ANGELUS DOUBLE SEAMER has done for other canners.—Send for cuts and prices.

Angelus Sanitary Can Machine Co.

310 NORTH AVENUE 19

LOS ANGELES, CAL.

Phillips Sheet & Tin Plate Co.

WEIRTON, WEST VA.

Actually the Largest Independent Producers of
Coke Tin Plate in the U. S. A.

CAPACITY

4,000,000

BASE BOXES

Three Separate Plants

OPEN HEARTH and BESSEMER PLATE, Carefully Rolled and
PROPERLY COATED

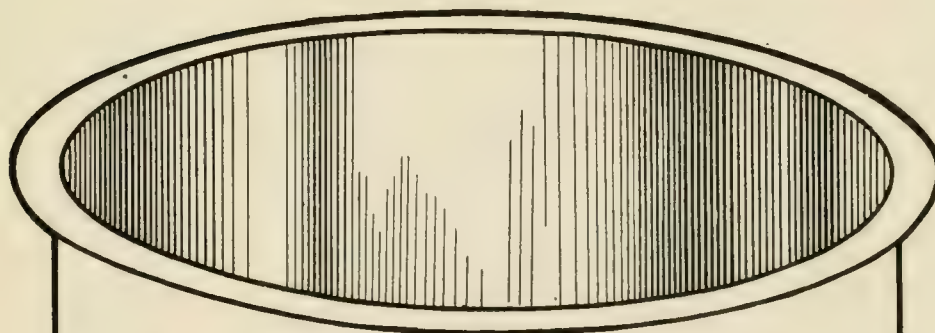
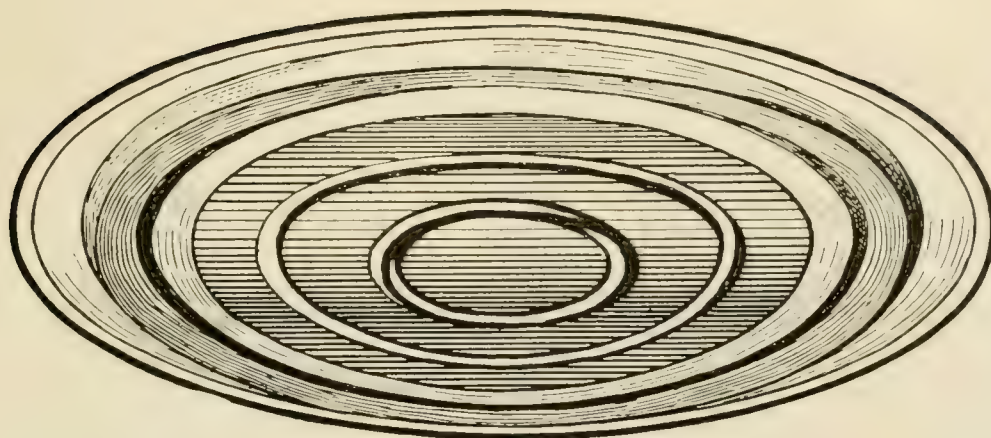
The Highest Grade of Cokes

Address Our Agents:

BALFOUR, GUTHRIE & COMPANY

SAN FRANCISCO and LOS ANGELES, CAL., PORTLAND, ORE.

SEATTLE and TACOMA, WASH., VANCOUVER, B. C.



To the Canning Trade

Seven years ago we started making packers' soldered cans. Today we do a business of a quarter of a million dollars a year, and the prices on these cans have been constantly reduced until today they are in some instances 33 per cent. less in cost than when we started in business.

WHY

Today we make both soldered and sanitary cans. Have you noticed any reduction in the price of sanitary cans recently?

WHY

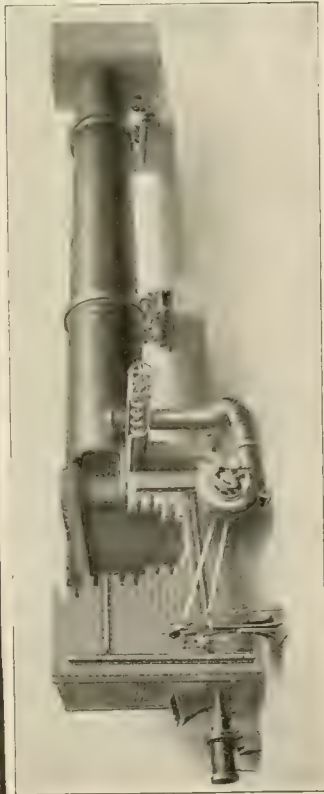
The reason for this growth in business is that we have modern machinery and give personal attention to all orders, thus assuring our customers good cans and good service.

"He Profits Most Who Serves Best"

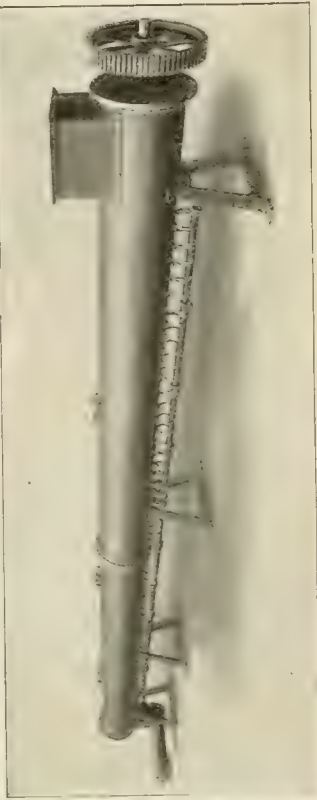
SEATTLE CAN CO.

C. M. BOGLE, President

Edw. Renneburg & Sons Co.



Direct Heat Rotary Dryer, with Special Underfeed



Automatic Cookers, all sizes

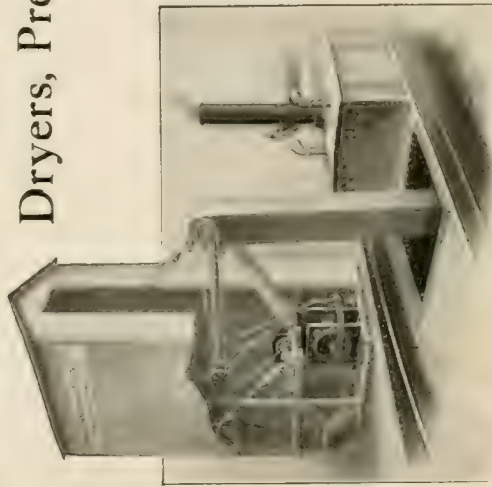
FISH FERTILIZER AND CANNING HOUSE MACHINERY

Dryers, Presses, Cookers, Elevators and Accessories

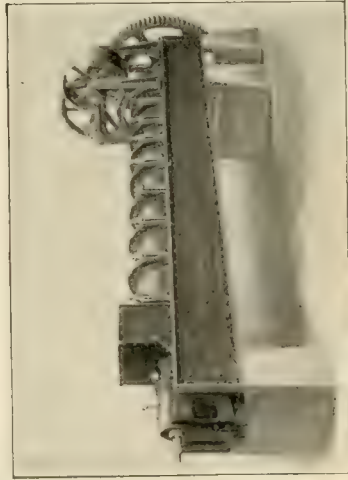
Measures, Weighers
Conveyors
Hydrators
etc., etc.

Edw. Renneburg & Sons Co.
2639 Boston Street
BALTIMORE, MD.

All inquiries given careful attention; write for details



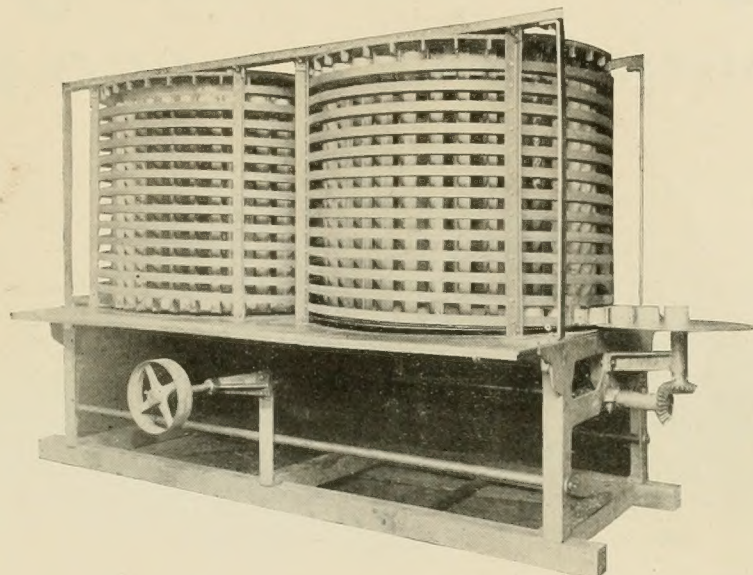
Fish Elevator, Ready for Operation



Continuous Screw Presses (Steel Construction)

Fish Canners, Attention!

R
E
L
I
A
B
L
E



D
U
R
A
B
L
E

Patented May 26, 1914.

SAN JOSE SPIRAL EXHAUST BOX FOR FISH CANNERS

—one that occupies only about one-third the floor space occupied by the ordinary exhaust box; and will last three times as long.

A machine holding 1000 cans—capacity of 70 cans a minute, 15 minutes exhaust—is only 9 ft. 6 in. long, 4 ft. 8 in. wide, and 8 ft. 6 in. high. A saving of floor space is a saving of money.

It is made entirely of steel and has no chain, cable or intricate working parts to need constant repair or replacing. This machine ought to give good service for at least ten years.

OPERATION—Cans are fed into the box at level of crimping machine, raised to top of first spiral, transferred to second spiral, lowered to same level as feed and discharged to closing machine.

SEE OUR EXHIBIT AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION, SAN FRANCISCO, 1915 — PALACE OF HORTICULTURE, BLOCK 26

If you would like more information about this machine—if you would like to know what those qualified to judge canning machinery have to say about it, write us.

ANDERSON-BARNGROVER MFG. CO.

333-361 WEST JULIAN STREET

SAN JOSE, CALIFORNIA

Sterling

A MOTOR FOR FISHERMEN

Eighteen Models, 8 to 300 H. P.

Heavy

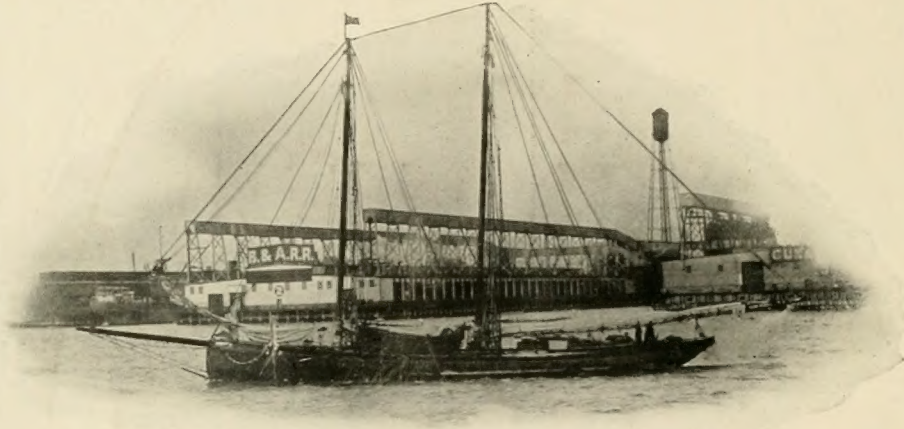
Heavy

Duty

Duty

Motors

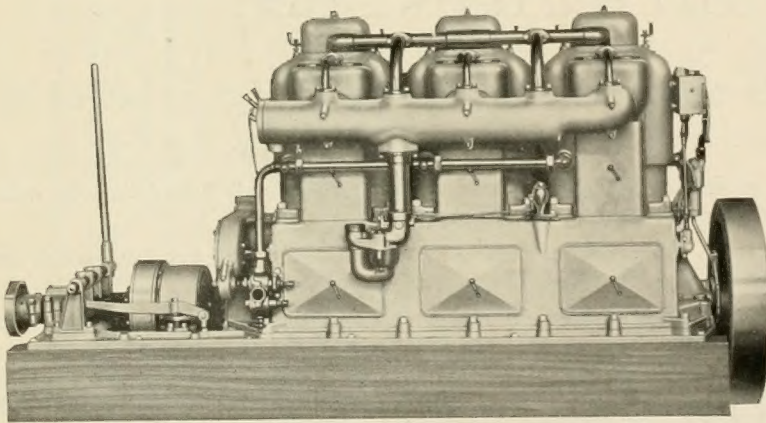
Motors



ELVA M. SPURLING.

Fishing Schooner owned by Capt. Jas. H. O'Neill, Gloucester, Mass. 80 ft. x 26 ft. x 14 ft.
Powered with 70 H. P. heavy-duty Sterling. Speed, 7¼ miles. Designed
by Burgess. Built by Storey.

The Most Flexible Heavy Duty Engine Built



This is the power plant of the Elva M. Spurling and many other vessels of her type. It is the Six Cylinder, Model D-4 Heavy Duty Sterling: Bore, 6½"; stroke, 9". It develops 70 H. P. at 400 R. P. M.; 85 H. P. at 500 R. P. M.

One of the latest achievements of the Sterling engineers is the Two Cylinder 5½" x 7" 12-15 H. P. Motor designed especially for the use of fishermen. Write for full information about this motor.

Everywhere Fishermen are now using Sterling Motors regardless of the size or type of boat. They know.

WRITE TODAY FOR THE STERLING CATALOGUE DESCRIBING THE COMPLETE LINE

SERVICE STATIONS.

San Francisco—C. H. Evans & Co.

Sacramento—Nunes Brothers.

Wilmington and Los Angeles—

Joe Fellows Yacht & Launch Co.

STERLING ENGINE CO.

1253 NIAGARA STREET
BUFFALO, N. Y.

SERVICE STATIONS.

Seattle—Atlas Gas Engine Agency.

Tacoma—Nickerson-MacFarlane Machinery Company.

Spokane—Ware Brothers.

Astoria—Atlas Supply Company.

Stockton—Stephen Bros.



HIGH ART COLOR PRINTERS
OF LABELS
FACTORIES EAST AND WEST



**THE
UNITED STATES
PRINTING
— AND —
LITHOGRAPH
COMPANY**

**HIGH ART COLOR PRINTERS
of LABELS
FACTORIES EAST AND WEST**

SEATTLE OFFICE · 901 HOGE BLDG.

SAN FRANCISCO OFFICE · 112 MARKET